

Influence of inpatient dietary restriction and post-discharge dietary fibre intake on recovery from acute uncomplicated diverticulitis

Mahoney, Sophie; Crichton, Megan; Jenkins-Chapman, Julie; Nucera, Romina; Dahl, Camilla ; Marshall, Skye

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Gold Coast Health
**Research Week
Conference 2018**
14–15 November 2018



ABSTRACT BOOKLET



WELCOME

To the Gold Coast Health Research Week Conference

This event aims to showcase the high quality and clinically relevant research happening on the Gold Coast. The conference is run by Gold Coast Health in close collaboration with Griffith and Bond Universities, who each have campuses on the Gold Coast.

The goals of the conference are threefold:

1. to encourage and strengthen collaboration; both within different disciplines and areas of the health service, and with our university and commercial partners;
2. to showcase the outcomes of research and highlight its role in effecting positive change, and;
3. to grow and support Gold Coast Health's emerging research presence.

We have a packed two days of events and presentations for our delegates, and the conference aims to be a key platform for health and medical research on the Gold Coast.

To learn more about the research happening within Gold Coast Health, please refer to the 2017 Research Report, available on our website.

*Dr Caitlin Brandenburg
Chair, Research Week Committee
Advanced Research Development Officer, Gold Coast Health*

Many thanks to the 2018 Gold Coast Health Research Week Committee

Dr Satyamurthy Anuradha

Dr Leonie Clancy

Dr Katya May

Dr Jamie Ranse

Dr Paulina Stehlik

Dr Gillian Stockwell-Smith

Dr Jerneja Sveticic

Mrs Elizabeth Wake

Dr Kelly Weir

Dr Rachel Wenke

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2017 award winners L-R- Ms Sarah Czuchwicki, Dr Karl Bagraith, Ms Rachael Oorloff, Dr Rachel Wenke and Ms Karly Foster

Full Program

Wednesday 14th November

10-11.30am **Official opening**

Opening

The changing landscape of health data and new opportunities for research

Keynote

Professor Sallie Pearson, Centre for Big Data Research in Health, University of New South Wales

This keynote and panel will discuss the changing landscape of health data in Australia over the past decade, and how this can be harnessed for health research. It will touch upon the emergence of Electronic Medical Records and the use of administrative databases and the considerations when using these datasets. The need for comprehensive data governance, privacy and security policies for secondary uses of health data will be a focal point of the morning.

Moderator: Prof David Henry, Centre for Research in Evidence Based Practice, Bond University

Panel

Panellists: Prof Helen Chenery, Board member and Research Committee Chair, Gold Coast Health

Prof Julia Crilly, Professor of Emergency Care, Gold Coast Health and Griffith University
Dr Brent Richards, Medical Director of Innovation and Director of Critical Care Research,
Gold Coast Health

Prof Eleanor Milligan, Clinical Ethicist and Chair of Human Research Ethics Committee,
Griffith University

Dr Adam Brand, Clinical Director Digital Transformation, Gold Coast Health

Dr Evan Ackermann, General Practitioner

11.30-12pm Morning tea

12-1pm	Growing healthcare staff capability
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Themed session 1

Explaining how knowledge brokering activities enhance clinicians research engagement: A realist review

Prof Sharon Mickan, Professor of Allied Health, Gold Coast Health and Griffith University

Long term outcomes of a supported funding initiative to promote allied health research activity: A qualitative realist evaluation

Mrs Joanne Hilder, Research Officer Allied Health, Gold Coast Health

Education for delirium prevention: Knowing, meaning, doing

Dr Jo-anne Todd, Research Fellow, Griffith University

Disaster simulation training improves disaster preparedness

Cindy Huang, Medical Student, Griffith University

Unleashing the potential of a midwifery graduate program to support and sustain the future midwifery workforce

Mrs Karen Richards, Practice Development Midwife, Gold Coast Health

1-1.30pm	Lunch
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1.30-2.30pm	Improving health service efficiencies: Where can we make a difference?
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Themed session 2

Patients seen in a Dietitian First Gastroenterology Clinic have improved quality of life and symptoms: A prospective cohort study

Ms Vicki Larkins, Dietician, Gold Coast Health

Reducing over-treatment near the end of life: The role of hospitals in achieving a culture change
A/Prof Magnolia Cardona, A/Prof Health Systems Research and Translation CREBP, Gold Coast
Health and Bond University

Identifying responders and non-responders to the UPLIFT program for people with persistent low back pain: A prospective cohort study

Miss Hayley Thomson, Physiotherapist, Gold Coast Health

	<p>GeneXpert testing for respiratory viruses: Impact on time to discharge and antibiotic prescribing at Gold Coast University Hospital <i>Dr Kevin O'Callaghan, Registrar- Microbiology, Gold Coast Health</i></p> <p>Shoulder pain cost-of-illness and the efficiency of public orthopaedic care <i>Mr Darryn Marks, Team Leader Neurosurgery and Orthopaedic Screening, Gold Coast Health and Griffith University</i></p> <p>Comparison on expenditure between an inpatient palliative care unit, and tertiary adult medical and surgical wards for patients at end of life - A retrospective chart analysis <i>Dr Gauri Gogna, Advanced Trainee Palliative Care, Gold Coast Health and Princess Alexandra Hospital</i></p>
2.30-3pm	Afternoon tea
3-4.15pm	<p>Improving health service delivery: The clinician's perspective Themed session 3</p> <p>Understanding barriers and enablers to behaviour change in research curious clinicians participating and leading research: A qualitative evaluation <i>Dr Rachel Wenke, Principal Research Fellow Allied Health, Gold Coast Health and Griffith University</i></p> <p>Intubation practices for children in Emergency Departments and Intensive Care Units across Australia and New Zealand: A survey of medical staff <i>Dr Shane George, Paediatric Emergency and Critical Care Specialist, Gold Coast Health, Griffith University and University of Queensland</i></p> <p>Barriers and enablers to effective emergency department to inpatient unit nursing handovers <i>Dr Georgia Tobiano, Nurse Researcher NMERU, Gold Coast Health and Griffith University</i></p> <p>Impact of MAGNET hospital designation on nursing culture: An integrated review <i>Dr Amy N B Johnston, Conjoint Research Fellow Emergency Medicine, Gold Coast Health, Metro South Health and University of Queensland</i></p> <p>Medication reconciliation at hospital discharge: Clinicians' perceptions of the barriers and enablers <i>Dr Sharon Latimer, Research Fellow Patient Safety in Nursing, Gold Coast Health and Griffith University</i></p> <p>Relational coordination of trauma care at Gold Coast University Hospital <i>Dr Eve Purdy, Emergency Medicine Registrar, Gold Coast Health and Queen's University</i></p> <p>How can End of Life care excellence be normalized in hospitals? Lessons from a qualitative framework study <i>Dr Christy Noble, Principal Research Fellow Allied Health and Principal Medical Education Officer, Gold Coast Health, Griffith University and University of Queensland</i></p>
4.15-5pm	<p>Consumer perspectives of care Themed session 4</p> <p>Survivorship Needs Assessment Project – Gold Coast Breast Service (SNAP-GC) <i>Mr Dean Vuksanovic, Clinical Psychologist, Gold Coast Health</i></p> <p>Exploring patients' understanding of antibiotic resistance and its influence on attitudes towards antibiotic use for minor illnesses: A qualitative study <i>Dr Mina Bakhit, PhD Student, CREBP, Bond University</i></p> <p>Collaboration and choice when planning for an uncertain future: A mixed methods feasibility study with dementia care-partners and clinicians <i>Dr Gillian Stockwell-Smith, Research Fellow Subacute and Aged Nursing, Gold Coast Health and Griffith University</i></p> <p>Aphasia-friendly hospital menus for stroke patients: A mixed methods study exploring perceptions and nutritional intake <i>Ms Katherine Francis, Senior Speech Pathologist, Gold Coast Health</i></p>
5-5.30pm	Light dinner
5.30-7pm	<p>Clinician-academic partnerships: A recipe for success</p> <p>Chair: Dr Jeremy Wellwood, Executive Director Clinical Governance, Education and Research, Gold Coast Health</p> <p>This evening session is designed for both clinician and academic researchers who are interested in forming better partnerships with each other. The panel consists an academic and clinician pair from four collaborative projects who will discuss;</p>

-
- How partnerships are formed and set up for success
 - Challenges and barriers to working together and how they were overcome
 - What worked well
 - Practical advice and lessons learnt
-

Prof Julia Crilly, Griffith University and Gold Coast Health and Mr Jack Cross, Gold Coast Health

Dr Nic West, Griffith University and Dr Ben Gunawan, Gold Coast Health

Prof Laurie Grealish, Griffith University and Gold Coast Health and Ms Maree Krug, Nurse Unit Manager Gold Coast Health

Dr Shelley Roberts, Griffith University and Gold Coast Health and Mrs Marie Hopper, Gold Coast Health

Thursday 15th November

10-11.30am **Lightning Talks session 1**

Lightning talks

Botulinum Toxin in the management of Temporomandibular Disorders- A systematic review <i>Dr Samuel Thambar, Principal House Officer- Maxillofacial Surgery, Gold Coast Health and Griffith University</i>	1	Fibrinogen Concentrate vs. Cryoprecipitate in severe traumatic haemorrhage in children: A pilot randomised controlled trial <i>Dr Shane George, Paediatric Emergency and Critical Care Specialist, Gold Coast Health, Griffith University and University of Queensland</i>	2
A review of the arrival coagulation, full blood count and blood gas profiles of trauma patients receiving pre-hospital packed red blood cell transfusions <i>Dr Dan Bodnar, Emergency Physician and Paramedic, Southern Cross University and Queensland Ambulance Service</i>	3	Alcohol related presentations to the Emergency Department: A multi-site review of prevalence and profile based on high and low alcohol times <i>Prof Julia Crilly, Professor of Emergency Care, Gold Coast Health and Griffith University</i>	4
Nutritional care of cardiac patients <i>Ms Katie Williams, Senior Dietician, Gold Coast Health</i>	5	Paediatric surgical follow up clinical audit <i>Dr Natasha McNamara, Junior House Officer- Paediatric Surgery, Gold Coast Health</i>	6
Point-of-Care Echocardiography (ECHO) in cardiac arrest: A descriptive study of practice in south-east Queensland <i>Dr Melad Syed, Intern, Gold Coast Health</i>	7	Integrated Care on the Gold Coast: How design thinking supported the development of integrated models of care <i>Ms Christina Wicker, Director of Integrated Care, Gold Coast Health</i>	8
A prospective cohort study of caregiver resilience on outcomes following severe traumatic physical injuries: Pilot study results <i>Mr Zachary Horn, Medical Student, Griffith University</i>	9	Domestic and family violence screening in the emergency department: Current practice and barriers to routine screening in Queensland <i>Miss Caitlin Bourke, Medical Student, Bond University</i>	10
Incidence, outcomes and treatment tolerance in EGFRm and ALK-rearrangement positive NSCLC treated with tyrosine kinase inhibitors <i>Mrs Kirsty Whitmore, Medical Student, Griffith University</i>	11	Discharges against medical advice: Are we fulfilling our medico-legal requirements? A clinical audit review <i>Mr Gautam Pisapati, Medical Student- Emergency Department, Gold Coast Health and Bond University</i>	12
Blood alcohol levels; if you're too drunk to drive, are you too drunk for surgical consent? <i>Dr Sophie West, Principal House Officer- Orthopaedics, Gold Coast Health</i>	13	Paediatric botox injections for chronic constipation <i>Dr Adelene Houlton, Paediatric Surgery Registrar, Gold Coast Health</i>	14
Chest trauma on the Gold Coast: An observational study <i>Mr Pranav Sharma, Medical Student- Trauma Service, Gold Coast Health and Bond University</i>	15	Intravenous cannulation on the wards: What happens with difficult-to-cannulate patients? <i>Mr Michael Nye, Medical Student- Emergency, Gold Coast Health and Griffith University</i>	16
Reducing the burden of the injury severity score <i>Mr Ben Gardiner, Trauma Registry Manager, Gold Coast Health and Griffith University</i>	17	Early in-reach rehabilitation for trauma patients at a major trauma centre <i>Ms Teresa Boyle, Rehabilitation Services, Gold Coast Health</i>	18

	<p>Clinical sepsis pathway implementation in EDs; a learner's guide to building a successful translation <i>Ms Amanda Harley, Clinical Nurse Consultant, Gold Coast Health and Children's Health Queensland</i></p>	<p>19 The quest for quality and performance indicators in mass disasters: Gold Coast Hospital and Health Service (GCHS) plots a course <i>Miss Amanda Samsuddin, Medical Student, Griffith University</i></p>	<p>20</p>
	<p>Right patient to the right hospital: A study of the prehospital trauma bypass procedure and its application in elderly trauma patients <i>Dr Shaney Maull, Registrar- Intensive Care Unit, Gold Coast Health, Ipswich General Hospital and Queen Mary University of London</i></p>	<p>21</p>	
11.30-12.15	Morning tea		
12.15-1pm	Understanding, using and doing clinical research		Medical Grand Rounds
	<p>Interpreting preclinical research: Considerations for health professionals- Prof Malcolm MacLeod</p> <p>Professor Malcolm MacLeod is Professor of Neurology and Translational Neuroscience at the University of Edinburgh. He is Founding Convener of the Collaborative Approach to Meta-Analysis and Review of Animal Data in Experimental Studies (CAMARADES), which is an international leader in advancing education about systematic reviews in animal research. Prof MacLeod is an international guest of the Centre for Research in Evidence Based Practice, Bond University.</p> <p>The Emerald Trial- Dr Arman Sabet</p> <p>Dr Arman Sabet is Director of Neurology at Gold Coast University Hospital and Principal Investigator of a local trial investigating the use of medicinal cannabis for people with Motor Neurone Disease.</p>		
1-1.30pm	Lunch		
1.30-2.30pm	Developing and comparing healthcare interventions		Themed session 5
	<p>Restricted Fluid Resuscitation in Sepsis associated Hypotension (REFRESH): A pilot randomised controlled feasibility trial <i>Prof Gerben Keijzers, Senior Staff Specialist Emergency Medicine, Gold Coast Health, Griffith University and Bond University</i></p> <p>Intravenous Immunoglobulin for Acute Spinal Cord Injuries [INFUSE] – an open label Phase I/IIa Trial <i>Ms Esther Jacobson, Clinical Research Coordinator, University of Queensland</i></p> <p>Partnering with patients and families to promote nutrition in cancer care: The PICNIC study <i>Dr Shelley Roberts, Research Fellow Allied Health, Gold Coast Health and Griffith University</i></p> <p>ConSEPT: Convulsive Status Epilepticus Paediatric Trial <i>Dr Shane George, Paediatric Emergency and Critical Care Specialist, Gold Coast Health, Griffith University and University of Queensland</i></p> <p>Comparison of teats to support successful oral feeding in preterm infants – A randomised crossover trial <i>TBC</i></p>		
2.30-3pm	Utilising data to improve healthcare		Themed session 6
	<p>Socioeconomic and geographical factors associated with hospitalised outcomes for major trauma patients: A Trauma Registry analysis <i>Ms Holly Barbagello, Medical Student, Griffith University</i></p> <p>Give pee a chance- The added benefit of PCR of sterile pyuria in Emergency Departments for detecting Chlamydia and Gonorrhoea <i>Miss Reshma Roy, Medical Student, Gold Coast Health and Bond University</i></p> <p>Searching EDIS for records of suicidal presentations using an evolutionary algorithm <i>Prof Chris Stapelberg, Professor of Mental Health and Senior Staff Specialist in Psychiatry, Gold Coast Health and Bond University</i></p>		

3-3.30pm	Afternoon tea			
3.30-5pm	Lightning talk session 2		Lightning talks	
	Influence of inpatient dietary restriction and post-discharge dietary fibre intake on recovery from acute uncomplicated diverticulitis <i>Miss Sophie Mahoney, Dietician, LifeShape Clinic and Bond University</i>	22	Sensory modulation in the Lavender Mother-Baby Unit: Using a novel intervention to improve maternal mental health and mother-infant relationships for mothers with severe mental illnesses <i>Ms Grace Branjerdporn, Research Coordinator MHSS, Gold Coast Health</i>	23
	Next generation sequencing profiling identifies mir-7703 as potential novel diagnostic biomarker for oral cancer <i>Mr Rushdi Fadhil, PhD Student, Griffith University</i>	24	When children die: GCH allied health paediatric palliative care project <i>Mrs Kylie Gill, Social Worker/Research Project Officer Allied Health, Gold Coast Health</i>	25
	Direct Care Nurses Improving the safety and quality of patient care informed by real time data <i>Prof Anita Bamford-Wade, Professor of Nursing and Midwifery, Gold Coast Health and Griffith University</i>	26	ICHOM standard set of outcome measures for pregnancy and childbirth: A feasibility study within the Australian context <i>Mrs Valerie Slavin, Midwife and PhD Candidate, Gold Coast Health and Griffith University</i>	27
	General anaesthetic vs local anaesthetic in C-sections at GCUH - a clinical audit <i>Dr Pushpraj Arora, Junior House Officer Anaesthetics, Gold Coast Health and Griffith University</i>	28	Get Set for Surgery: An initiative that empowers patients to increase their wellness <i>Ms Che Hooper, Medical Student, Griffith University</i>	29
	Pilot and validation of the SHReD learning styles questionnaire for patient education <i>Ms Karly Forster, Clinical Facilitator-Pharmacy, Gold Coast Health and Griffith University</i>	30	Oral microbiome and its potential role in the early detection and monitoring of oral cancer <i>Dr Mohsen Sohrabi, Research Fellow-School of Dentistry and Oral Health, Griffith University</i>	31
	Kennedy Terminal Ulcers: A scoping review <i>Dr Sharon Latimer, Research Fellow Patient Safety in Nursing, Gold Coast Health and Griffith University</i>	32	Intervention Of The Week: A little staff recognition goes a long way <i>Miss Ella Whately, Clinical Facilitator-Pharmacy, Gold Coast Health and Griffith University</i>	33
	The role of the nurse in antimicrobial stewardship: An integrated review <i>Mrs Sarah Thomas, Clinical Nurse, Gold Coast Health</i>	34	VOICE OF THE STAFF: Suicide Prevention Strategy survey <i>Mrs Jerneja Sveticic, Research Officer-Mental Health, Gold Coast Health</i>	35
	Designing a clinical trial for the evaluation of a medicinal cannabis product in persistent pain <i>Mr Tony Hall, Clinical Pharmacist Advanced- Interdisciplinary Persistent Pain Centre, Gold Coast Health and QUT</i>	36		
Poster only	Fibrinogen Concentrate vs. Cryoprecipitate in severe traumatic haemorrhage: A pilot randomised controlled trial - FEISTY	37	Implementation and Recruitment of the Fibrinogen Early In Severe Trauma studY (FEISTY)	38
Closing Session Recipients of the 2018 Gold Coast Health and Gold Coast Hospital Foundation Grants and Research Week Conference Awards will be announced				

Abstracts

Themed session abstracts

Wednesday 14th November
Themed session 1
Growing healthcare staff capability

Explaining how knowledge brokering activities enhance clinicians research engagement: A realist review

Sharon Mickan (1,2), Rachel Wenke (1,2), Kelly Weir (1,3), Christy Noble (1,2), Andrea Bialocerkowski (2)

(1) Allied Health Clinical Governance, Education and Research, Gold Coast Health; (2) School of Allied Health Sciences, Griffith University; (3) Menzies Health Institute, Griffith University

Background/objectives: Knowledge brokers are increasingly used to support knowledge translation between research producers and users. Three key theoretical frameworks explain how knowledge brokering (KB) works and ten KB activities were identified in a recent systematic review. This study investigated how Allied Health Research Fellows use KB activities within tailored evidence-based interventions to achieve enhanced research engagement by allied health professionals (AHPs).

Methods: We chose a realist evaluation methodology to explore the KB activities used by research fellows to support research interested AHPs to participate in and lead clinical research projects within GCH. Key explanatory mechanisms were identified as the way in which research fellows used KB activities to support clinicians' research engagement. Outcome measures were continued AHP research engagement, and progressive achievement of collaborative goals over twelve months. Additionally, research fellows were asked to describe how they used these ten KB activities at 3, 7 and 12 months during this study.

Results: All ten KB activities were used, with differing patterns and explanations. Research fellows described needing to develop a holistic understanding of each clinician's level of engagement, skill set, motivation and trust to engage in research, as well as having to create a holistic picture of the research project within the local clinical context in order to structure an individualised research support package.

Conclusion: Research fellows described a dynamic process of understanding, supporting and facilitating clinicians, around a research project in a specific clinical context. All KB activities were used in a flexible, individualised manner.

Long term outcomes of a supported funding initiative to promote allied health research activity: A qualitative realist evaluation

Joanne Hilder (1), Sharon Mickan (1,2), Christy Noble (1,2), Kelly Weir (1,2,3), Rachel Wenke (1,2)

(1) Allied Health Clinical Governance, Education and Research, Gold Coast Health; (2) School of Allied Health Sciences, Griffith University; (3) Menzies Health Institute, Griffith University

Background/objectives: Allied health professionals (AHPs) at Gold Coast Health produce and implement research evidence; however, clinicians report lack of protected time as a barrier to research. One strategy addressing this barrier is the provision of funding for clinicians to have protected time to undertake research while another colleague maintains their clinical workload. This study aimed to describe the long-term outcomes of a Gold Coast Health funding initiative to promote allied health research activity and to identify key mechanisms and contexts that facilitated these outcomes.

Methods: We used a qualitative research design informed by a realist evaluation, to conduct ten semi-structured interviews with AHPs who had participated in the funding initiative 1-3 years ago. Questions explored outcomes, mechanisms and contexts of the funding initiative. Data was thematically coded into context-mechanism-outcome configurations.

Results: Long term outcomes identified included increased individual research opportunities, influence on team research culture, and impact on clinical work/practice. Other outcomes included increased confidence, knowledge and skill, research outputs and difficulties progressing research. Four Context-Mechanism-Outcome (CMO) configurations were identified to explain which contexts and mechanisms produced these outcomes. Examples of contexts included

Themed session abstracts

perception of managerial support, undertaking a research higher degree and joint applications, while mechanisms included accessing infrastructure and resources.

Conclusion: Providing backfill to AHPs to complete research can lead to important outcomes including increased research opportunities, capacity and culture; research outputs and clinical practice change. Outcomes are influenced by the context and mechanisms, and these should be considered in future implementation of similar funding initiatives.

Education for delirium prevention: Knowing, meaning and doing

Laurie Grealish (1,2,3), Jo-Anne Todd (2), Maree Krug (1), Andrew Teodorczuk (3,4)

(1) Gold Coast Health; (2) School of Nursing & Midwifery, Griffith University; (3) Menzies Health Institute Queensland; (4) School of Medicine, Griffith University

Background/objectives: Hospital-acquired delirium is a common complication for older patients. Delirium prevention programs have been shown to reduce incident delirium and decrease length of stay; however, incorporating delirium prevention into nursing practice continues to be challenging. The aim of this research was to investigate the impact of the three-element delirium prevention educational program on nurses' knowledge about delirium prevention and care over time.

Methods: A three-element delirium prevention educational program was conducted with 42 nurses in a medical ward (H1E) at the Robina Campus of Gold Coast Health. The education program consisted of three elements (1) of a brief online course; (2) case discussions with experts and; (3) a high-fidelity simulation.

Results: A repeated cross-sectional design was utilised, with data collected over four time points before (T0), during the education program (T1, T2) and three months post completion of the study (T3). There were high levels of participation in the elements (48% to 85%). Correct responses on the knowledge survey increased over time from 74.5% (T0) to 86.4% (T3; $p = .003$),

suggesting a three-element program was effective in improving nurses' knowledge about delirium.

Conclusion: The three-element program provided staff with different ways to engage in learning. The increase in knowledge post completion indicates that learning about delirium prevention continued without structured education. Understanding how nurses' learning through engagement in the three-element program was translated to other nurses, particularly those who were unable to attend, is important to our understanding of how cultures of practice can be transformed.

Funding: The National Health and Medical Research Council Translating Research into Practice Fellowship (2016-17) for Dr Grealish; and Griffith University School of Nursing & Midwifery Seed Funding Grant.

Disaster simulation training improves disaster preparedness

Yuet Ling Lui (1), Amanda Samsuddin (1), Cindy Huang (1), Nathan Watkins (2), Peter McNamee (3), Naomi Muter (3), Dan Byron (2), Amy Sweeny (2)

(1) School of Medicine, Griffith University; (2) Emergency Department, Gold Coast Health; (3) Operations, Disaster and Emergency Response, Gold Coast Health

Background/objectives: Mass casualty incidents are often unpredictable; thus, preparedness is key to increasing the efficiency of resources allocation and utilisation. It is well-established that hospitals undertake mass casualty exercises at a great cost to improve preparedness, but these exercises are not often tested to measure its effectiveness. Therefore, it is crucial to assess staffs' preparedness to identify gaps in the training that may warrant further reviews. This study aims to determine the effectiveness of Emergo Train System (ETS) mass casualty exercises in improving perceived preparedness of multidisciplinary hospital-wide teams.

Methods: Multiple ETS mass casualty exercises were held in Gold Coast University Hospital (May 2017) and Robina Hospital (February 2018). Surveys were administered prior to and after the simulation exercise to assess participants'

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perceived confidence, skills and process knowledge on a 5-point Likert scale. Changes in respondents' pre- and post-scores were analysed using a paired t-test.

Results: A total of 243 medical staff have participated in the study with 132 having completed both the pre- and post-exercise surveys. The response rate of completing both surveys was 59%. These surveys indicate significant ($p < .001$) increases in self-confidence, skills and knowledge (0.8, 0.4, 0.4 point increases respectively). 98% of the respondents reported that the exercise was valuable.

Conclusion: This study shows that involvement in simulated disaster training (e.g. ETS) increases confidence, skills and knowledge of the disaster management team. Therefore, simulated disaster training should be continued to be supported as a means of enhancing staff confidence, skills and knowledge.

Unleashing the potential of a midwifery graduate program to support and sustain the future midwifery workforce

Karen Richards (1), Debra Cullen (1) Kathleen Baird (1,2)

(1) Midwifery Services, Gold Coast Health; (2) Griffith University

Background/objectives: Newly qualified midwives (NQM's) were supported in a hospital graduate program with a dedicated practice development midwife (PDM) and clinical education team within a large tertiary hospital followed by in-depth evaluation. Newly qualified midwives (NQM's) face challenges when transitioning into registered practice. Negative experiences may result in higher attrition rates. Working in busy clinical environments some NQM's feel more prepared than others to deal with the transition.

Method: A mixed methodology research design was adopted using an online survey, followed by in depth interview group sessions. Eighteen newly qualified midwives participated in the survey, seventeen midwives completed the survey. Quantitative data was analysed using descriptive statistics (SPSS) and thematic analysis adopted to analyse interview data.

Results: All the NQM's assessed the program as valuable and supportive with the majority of participants reporting an increased confidence. 17 NQM's (94% response rate) completed the survey. 76% ($n = 13$) NQM's agreed the program had supported achievement of learning goals, and a smooth transition into their second year of practice.

Conclusion: Supported mentorship within the program also positively influenced their transition from student midwife to a registered midwife role. Providing NQM's with a robust, evidence based mentorship program with dedicated support from a PDM and education team for protected education, debrief and reflection opportunities was highly beneficial. A Structured induction and study day plan ensured consistent clinical teaching. Conclusion The research highlights the importance of implementing successful supported transitional programs for newly qualified midwives.

Wednesday 14th November

Themed session 2

Improving health service efficiencies: Where can we make a difference?

Patients seen in a Dietitian First Gastroenterology Clinic have improved quality of life and symptoms: A prospective cohort study

Rumbidzai Mutsekwa (1), Vicki Larkins (1), Russell Canavan (1) Rebecca Angus (1)

(1) Gold Coast University Hospital

Background/objectives: The Dietitian-First Gastroenterology Clinic (DFGC), an initiative to address unacceptably long wait-times in gastroenterology resulted in reduced wait-times, reduction in patients breaching recommended wait- times and very high patient satisfaction. Evaluation of models of care need to consider patient health outcomes, a key indicator for overall health service effectiveness. The study objective was to determine if patients managed within the DFGC have improvement in symptoms and improved quality of life(QoL).

Methods: Patients seen in DFGC since May 2018 were eligible to participate in study if assessed to have irritable bowel disease using Rome IV criteria. Consenting participants completed

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validated symptom-severity and health-related QoL assessments pre- and post-treatment, with changes calculated and analysed using paired t-tests. Univariate mixed effects analyses were conducted to examine associations between patient IBS-SSS, IBSQoL and patient demographics.

Results: Eighty-four patients were recruited; to date 40 sets of data are complete (78.9% female), average age of 35.3 years and average BMI of 26.2kg/m². Diagnoses include: IBS-C 18.4%, IBS-D 36.8%, IBS-M 28.9% and IBS-U 15.8%, as diagnosed using the Rome IV criteria. The average treatment period was 70 days (range 37 – 123 days).

Conclusion: DFGC thus far has shown positive patient health outcomes, as demonstrated by improvements in symptom severity and QoL indicators.

Funding: Health Practitioner Research Scheme.

Reducing over-treatment near the end of life: The role of hospitals in achieving a culture change

Magnolia Cardona (1,2), Ebony Lewis (3), Hatem Alkhouri (4), Justin Clark (1), Paulina Stehlik (1,2), Nigel Lovell (5)

(1) Centre for Research in Evidence Based Practice, Faculty of Health Sciences and Medicine, Bond University; (2) Gold Coast Hospital and Health Services; (3) School of Public Health and Community Medicine, The University of New South Wales; (4) Emergency Care Institute, NSW Agency for Clinical Innovation; (5) Graduate School of Biomedical Engineering, The University of New South Wales

Background/objectives: Frail elderly people with comorbidities, repeatedly use hospitals in their last year of life. Our research program aims to reduce overtreatment of these patients. We present our results thus far.

Methods: We conducted two systematic reviews; developed a prediction checklist (CriSTAL) to estimate risk of death; undertook two prospective validation studies of the checklist; led a national pilot consultation with emergency staff (ED); and

completed universal frailty screening in emergency departments.

Results: Systematic review #1 (38 studies with 1.2 million subjects) revealed that a third of older patients in their last 6-months of life are subjected to non-beneficial treatments. Systematic review #2 (16 eligible studies of 491,697 elderly) identified medically inappropriate hospitalisations ranged from 2.0% to 67.0%, and socially-driven admissions prompted by shortage of community services. CriSTAL validation in ~3,000 subjects (4 countries) yielded high predictive short-term death accuracy (AUROC 79.0%-82.5%). The ED staff consultation supported nurse-led interventions to manage frailty. Frailty prevalence measured by 3 frailty instruments varied (9.7%-43.7%) but frailty consistently and independently predicted poor outcome irrespective of instrument (OR (95%CI): 2.58 (1.72–3.86); 2.20 (1.55–3.12); 2.46 (1.16–5.05)). Our future research to reduce low-value care includes building electronic decision support for terminal illness; hospital service models including systematic screening for risk of death and pre-frailty; and determining effective deprescribing strategies near end-of-life.

Conclusion: A hospital culture of less aggressive interventions can enhance the end-of-life experience through identifying frailty and impending death early, initiating end-of-life discussions, and providing coordinating care pathways that meet the demands of the ageing population.

Funding: National Health and Medical Research Council and Agency for Clinical Innovation.

Identifying responders and non-responders to the UPLIFT program for people with persistent low back pain: A prospective cohort study

Kerrie Evans (1), Michel Coppieters (1), Leanne Bisset (1), Hayley Thomson (2), Jon Dearness (2), John Kelley (2), Kylie Conway (2), Collette Morris (2)

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Background/objectives: Low back pain (LBP) is the leading cause of disability worldwide. The UPLIFT program was established by clinicians at

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GCUH. While prognostic screening for patients with LBP allows for more effective utilisation of health care resources in primary care settings, its effectiveness in secondary care settings remains unclear. We hypothesise that the prediction model for success in the UPLIFT program will include baseline variables such as high fear avoidance behaviours, low pain self-efficacy and matched treatment expectations.

Methods: The study was a prospective cohort study with a 6-month follow up. 248 participants aged over 18 years who have been referred to the GCUH NSC service with persistent LBP. Demographic and information and 10 predictor variables were collected prior to commencing the program. The primary outcome to determine success of the UPLIFT program is a Global Rating of Change (GROC) score of $\geq +3$, evaluated immediately following completion of the program and at 6-month follow up.

Results: Pilot testing was collected from January to July 2017 prior to commencement of data collection in 2018. Pilot testing involved 120 participants and analysis involved the GROC scale used as the primary outcome. Preliminary data demonstrate a success rate of 55%. Although no patients in the pilot sample worsened, a small percentage of patients (9%) showed no improvement, and others (36%) experienced a smaller than clinically meaningful improvement.

Conclusion: Patient and health service outcomes may be improved if responders and non-responders to the UPLIFT program could be identified more accurately and more objectively at baseline. There is a recognised need to develop a tool that will help identify those patients likely to gain the most from the UPLIFT program and conversely those patients who are at risk of a poor outcome who may require alternative treatment approaches.

Funding: Successful in the 2017 Gold Coast Hospital and Health Service and Gold Coast Hospital Foundation research small grants funding scheme (SG0027).

**GeneXpert testing for respiratory viruses:
Impact on time to discharge and antibiotic
prescribing at Gold Coast University Hospital**

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Background/objectives: GCUH has acquired a GeneXpert testing device for respiratory viruses. This enables rapid detection of Influenza A, Influenza B and RSV, reducing turnaround time for diagnosing these viruses from ~48 hours to 30 minutes. This project evaluates if this initiative has led to earlier patient discharge from ED, and reduction in unnecessary antibiotic use.

Methods: Chart review was performed on patients presenting emergently to GCUH in whom nasopharyngeal swab was ordered. The categorical variables were: Time to discharge 1. Less than 4 hours 2. 4-24 hours 3. More than 24 hours Antibiotic prescribing 1. No antibiotics 2. 1 antibiotic only 3. >1 antibiotic Data was collected from 01/05/2017 – 31/08/2017 prior to GeneXpert testing, and from 01/05/2018 – 31/08/2018 following the intervention. Changes in variable proportions following GeneXpert availability were assessed.

Results: In 2017, 903 patients met inclusion criteria, with 434 positive swabs. 5.1% were discharged within four hours, 19.6% between 4-24 hours and 75.3% were admitted for >24 hours. 41.3% received no antibiotics, 1.8% received one antibiotic and 56.9% received >1 antibiotic. In 2018, 722 patients were included. Full data entry and analysis for these is pending. So far (157 cases), 6% were discharged within 4 hours, 10% within 4-24 hours and 82.8% were admitted for >24 hours. 36.9% received no antibiotics, 0% received one dose and 63.1% received >1 dose.

Conclusion: Not all data has been collected yet: the discussion will be changed. At this stage GeneXpert testing has not reduced time to discharge nor unnecessary antibiotic use.

Shoulder pain cost-of-illness and the efficiency of public orthopaedic care

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Background/objectives: Shoulder pain is a common and disabling musculoskeletal disorder. Understanding its economic burden and how efficiently it is managed, are both prerequisites for informed policy and service planning, yet neither are well understood. This study calculated the cost to society of an orthopaedic waiting list, the cost to government of hospital care and the efficiency of service provision.

Methods: In 277 Gold Coast Hospital and Health Service orthopaedic shoulder patients, the societal cost of waiting for care was calculated from a suite of outcome measures including a healthcare costs and impacts questionnaire, work absenteeism and work presenteeism questionnaires (Work Limitations Questionnaire, Work Productivity and Activity Impairment Questionnaire). Hospital care was collated, and costs (to government) were derived from hospital activity-based-funding revenue.

Results: The mean daily societal cost of healthcare and domestic support per patient on the orthopaedic waiting list of AU\$20.72 (AU\$7563 annually) increased to AU\$61.31 (AU\$22,378 annually) with inclusion of lost work productivity. Mean per patient hospital care was AU\$2622 in year one and AU\$3835.78 (SD 4961.28) over two years. 22% of orthopaedic shoulder referrals converted to surgery. Over half (51%) of care costs were attributable to outpatient services.

Conclusion: Current service provision is both costly and inefficient. Waiting lists create a large economic burden for society, few referrals require surgery and less than half of hospital care cost relates to inpatient services. To reduce this economic burden new models of care are needed to better manage shoulder pain in the community and correctly identify surgical candidates prior to orthopaedic referral.

Comparison on expenditure between an inpatient palliative care unit, and tertiary adult

medical and surgical wards for patients' at end of life - A retrospective chart analysis

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Background/objectives: The highest healthcare expenditures occur towards end of life. Costs relate to hospital admissions and investigations to diagnose, prognosticate and direct treatment¹. This Australian study compared cost of investigations in the last 72 hours of life between an inpatient palliative care unit (PCU) and a tertiary hospital.

Method: We retrospectively reviewed fifty adult medical and surgical patients (admitted for >72 hours and who died in hospital) from the PCU and referring tertiary centre, between March and July 2016. Patients in the emergency department, intensive care, medical assessment, paediatric and obstetric units were excluded. All patients had a Not For Resuscitation order and were on the 'Care of the Dying' pathway (a modified version of the Liverpool Care Pathway).

Results: Expenditure was less if palliative care were the primary caregivers, with statistically significant differences in amount of imaging (p value 0.00035) and pathology (p value 0.000009) ordered. There was no difference in microbiology (p value 0.1726) and histology (p value 1) ordered. Total cost of investigations for PCU patients was \$1,180.29 (4 of 50 patients), compared with \$8,440.26 (29 of 50 patients) in the tertiary hospital.

Conclusion: Inpatient PCUs are less likely to order investigations and are more cost-effective. A prospective study comparing an inpatient PCU, and patients at a tertiary centre, with and without consult liaison palliative care input, would be worthwhile to see if outcomes remain the same and if consult liaison palliative care affects the investigative burden.

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Themed session 3
Improving health service delivery: The clinician's perspective

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Understanding barriers and enablers to behaviour change in research curious clinicians participating and leading research: A qualitative evaluation

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Background/objectives: Clinicians are increasingly encouraged to participate and in some cases lead research, which often requires the acquisition of new behaviours. While previous research has explored enablers and barriers to research engagement, it remains unclear how these influence behaviour change; a vital key in tailoring research development in clinicians. As such, we aimed to explore the barriers and enablers to behaviour change in allied health professionals (AHPs) participating and leading research.

Methods: We used a qualitative research design informed by behaviour change theory and conducted 14 semi-structured individual or group interviews with 21 AHPs employed by Gold Coast Health who wanted to participate and/or lead research. Interview questions were developed to ask about perceived barriers and enablers to research engagement, using the 14 domains of the Theoretical Domains Framework (TDF). Barriers and enablers were coded from the transcribed interviews and mapped to the TDF. Inductive coding was used to form subcategories and identify emergent themes within these domains.

Results: Dominant enablers to research related to positive beliefs about consequences of engaging in research, social influences including managerial support and peer support and strong motivations to develop skills and inform practice. Dominant barriers related to environmental context and resources (e.g., reduced funding or time), emotional responses of being overwhelmed and reduced perceived capability.

Conclusion: To support clinicians interested in participating and/or leading research it is important to consider increasing capability and opportunities for funding and time, as well as other aspects including social influences (through managerial and peer support) and the clinician's emotional response to research.

Intubation practices for children in Emergency Departments and Intensive Care Units across Australia and New Zealand: A survey of medical staff

Shane George (1,2,3), on behalf of the Paediatric Research in Emergency Departments International Collaborative (PREDICT) research network

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Background/objectives: Intubation of children in the emergency setting is a high risk, low incidence event. Over recent years there has been an effort to improve intubation success in both adults and children through the introduction of intubation checklists and algorithms to focus the team on the task at hand. Despite these check lists, there is still significant variation in clinician practice on the techniques used to optimise conditions for intubation. These variations in practice are largely based on clinician preference, experience and expert opinion without high quality evidence to support one technique over another. This study aims to establish a baseline of clinician practice across Australia and New Zealand to inform the design of randomised controlled trials where evidence to support one technique over another is lacking or inadequate.

Methods: This study is be a voluntary questionnaire undertaken by medical staff at registrar level or above in emergency departments and paediatric intensive care units across the PREDICT and ANZICS PSG research networks.

Results: A total of 471 clinicians were invited to complete the survey. 312 responses (66%) were

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received over the data collection period. Considerable variation in practice was reported in techniques of preoxygenation, apneic oxygenation, the role of video laryngoscopy.

Conclusion: Intubation of a critically unwell child is a complex procedure and influenced by a number of patient and operator factors. Further research is required to ascertain the optimal combination of techniques and clinical practice to improve outcomes in this high risk, low frequency procedure.

Barriers and enablers to effective emergency department to inpatient unit nursing handovers

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(1) Gold Coast Health; (2) Griffith University

Background/objectives: Intra-hospital handovers are risky because of co-ordination of health professional across contexts, organisational pressures and logistical arrangements of transferring patients. There is little value devising interventions for improving handover processes in hospitals, without sufficiently understanding the problem. Thus the aim of this study is to identify the barriers and enablers to effective emergency department (ED) to inpatient unit (IPU) nursing handovers.

Methods: 50 nurses working in ED and IPUs participated in 10 focus group, semi-structured interviews. The size of each group ranged from 4-8 participants, and data saturation was achieved. Interviews were transcribed, and inductive content analysis was undertaken.

Results: Three categories were found in data. In the first category 'lacking clear roles', there were many nurses involved in the information and transfer process. After the phone-to-phone handover occurred in ED, it was unclear 'who' should transfer the patient to the IPU and 'what' handover content was required on the IPU. In category two 'strategies to ensure continuity of care', ED and IPU nurses used electronic medical records to get information about the patient, and IPU nurses undertook 'prompting', to improve the quality of handover. In category three 'strained

relationships', ED and IPU agreed that ED nurses faced challenges meeting IPU information needs, largely due to the ED context.

Conclusion: Working groups were formed at the hospital, to address barriers identified. For example, a new handover protocol was developed and implemented by a working group (including researchers, clinical governance and clinicians).

Funding: Private Practice Trust Fund.

Impact of MAGNET hospital designation on nursing culture: An integrative review

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Background/objectives: Organisational culture is a critical part of a positive and productive working environment. The MAGNET accreditation program, originated in the USA but is progressively becoming more internationally sought after. It recognises organisations that have positive organisational culture for nurses. However, the broad impact/s of MAGNET on hospital culture outside of America remains unclear. We explored the impact of MAGNET designation on organisational culture within the nursing context.

Methods: An integrative literature review using a systematic search of Medline (Ovid), Embase (Elsevier) and the CINAHL Ebsco databases and a combination of subject headings and key words for organizational culture, organizational change and MAGNET hospital, as well as reference chaining was conducted. Using a constant comparative process key categories, themes and subthemes emerged.

Results: Twenty-nine key studies were identified and evaluated utilising two study quality appraisal tools; the National Health and Medical Research Council (NH&MRC) levels of evidence and the

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Polit and Beck critical appraisal tool. Three key categories emerged from the data: (1) nurse practice environment; (2) structure and process models; (3) measurement scales. A key finding was that MAGNET designation appears to enhance organisational culture for nurses and the framework used to introduce MAGNET helps to empower nurses to direct organisational culture in their facility.

Conclusion: MAGNET appears to have a positive impact on organisational culture, particularly for nurses. However, the lack of standardised evaluation tools limits comparability of studies. Generally, the quality of evidence used to develop recommendations was poor to very-poor. More, well-designed studies undertaken outside of the USA are required.

Medication reconciliation at hospital discharge: Clinicians' perceptions of the barriers and enablers

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Background/objectives: Medication reconciliation is the processes of obtaining, verifying and documenting accurate lists of patients' current medications. This important patient safety activity identifies and resolves medication discrepancies and provides accurate information for clinical handover. In Australia, the roles and responsibilities of clinicians in medication reconciliation is poorly understood. The aims of this study are therefore to examine and describe the perceptions of pharmacists, nurses and doctors from five GCUH clinical units about the barriers and facilitators relating to medication reconciliation during the peri-discharge period.

Methods: We conducted focus groups (n = 5) and semi-structured interviews (n = 2) with 43 clinicians. Content analysis, using Cane et al's

Theoretical Domains Framework, was used to analyse the data.

Results: Most participants agreed pharmacists have the primary responsibility for medication reconciliation. Nurses perceived only a limited role for themselves, despite routinely undertaking patient education in relation to discharge medications. Medical participants perceived medication reconciliation as one of their responsibilities, but felt that competing priorities and high workload negatively impacted on it. Preliminary findings suggest that variation in work processes and pressure to rapidly discharge patients hinder medication reconciliation, while strong inter-professional relationships are a key facilitator.

Conclusion: Medication reconciliation during the peri-discharge period is perceived as important by all participants and important barriers and facilitators are being identified. More effective medication reconciliation may require greater clarification of roles and responsibilities and allocating protected time for this important activity.

Funding: A Griffith University School of Nursing and Midwifery seeding grant funded this research.

Relational coordination of trauma care at Gold Coast University Hospital

Eve Purdy (1), Darren McLean (3), Don Campbell (4), Martin Wullschleger (4), Matthew Scott (4), Gary Berkowitz (5), James Winearls (6), Andrew Donahue (7), Doug Henry (8), Victoria Brazil (2)

(1) Emergency Department Gold Coast Health, University of North Texas, Queen's University; (2) Emergency Department Gold Coast Health, Bond University; (3) Centre for Health Innovation Gold Coast Health; (4) Trauma Service Gold Coast Health; (5) Queensland Ambulance Service; (6) Intensive Care Gold Coast Health; (7) Department of Anaesthetics Gold Coast Health; (8) University of North Texas

Background/objectives: Trauma patients can suffer harm as result of poorly integrated care and conflict between teams involved in the patient journey. Most proposed solutions focus on protocols and systems, but trauma care providers are human – and their behaviour is affected by how they feel about their colleagues and their

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work. We aimed to examine the relationships, interactions and culture within health service staff involved in the early phases of major trauma care, to inform focused improvement strategies.

Methods: Overall this is a large mixed-methods study and multi-phase project that includes surveys, participant-observation, interviews and focus groups. The first stage, a survey of relational coordination (a validated tool to study relationships in organizations) and a qualitative survey of trauma team functioning, was distributed to over 400 multidisciplinary participants at Gold Coast University Hospital involved in trauma care.

Results: The survey closes on October 5, at which point data will be analysed in time for the Gold Coast Health research week.

Conclusion: Insights from the relational coordination survey results, combined with data from participant observation and interviews, will allow us to work with trauma care providers to design interventions to improve relationships amongst our team and ultimately provide better care to our patients. It demonstrates the application of a novel approach to team research and quality improvement.

How can End of Life care excellence be normalized in hospitals? Lessons from a qualitative framework study

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Background/objectives: There is a pressing need to improve end-of-life (EOL) care in acute settings. This requires meeting the learning needs of acute care healthcare professionals to develop broader clinical expertise. The UK experience

demonstrates a focus on implementation processes and daily working practices is necessary.

Method: This qualitative study, informed by Normalisation Process Theory (NPT), investigates how an EOL care guideline, 'Clinical Guidelines for Dying Patients' (CgDp), was embedded in a large Australian teaching hospital. The contextual barriers and facilitators, as the CgDp was implemented, were identified. A purposive sample of 28 acute ward (allied health (AH) 7, nursing 10, medical 8) and palliative care (medical 2, nursing 1) staff participated. Interviews (n = 18) and focus groups (n = 2), were audio-recorded and transcribed verbatim. Data were analysed using an a priori framework of NPT constructs.

Results: The CgDp afforded staff support, but clinical process realities were more complex than suggested. The CgDp 'made sense' to nursing and medical staff. Because AH staff were not wardbased, they were not as engaged. Implementation was challenged by competing concerns in the acute setting where most patients required a different care approach. The CgDp is designed to start when patients are dying, yet staff found it difficult to diagnose dying. Participants believed using CgDp improved patient care but reported an absence of real time monitoring or quality improvement activity.

Conclusion: A model addressing the barriers and guiding implementation of EOL guidelines in acute settings is proposed with strategies to develop capabilities for embedding EOL care excellence.

Funding: Gold Coast Hospital Foundation 2014.

Wednesday 14th November Themed session 4 Consumer perspectives of care

Survivorship Needs Assessment Project – Gold Coast Breast Service (SNAP-GC)

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(1) Gold Coast Hospital and Health Service

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Background/objectives: The transition from a breast cancer patient to a “survivor” can be associated with significant physical, psychological, and social challenges. Development of best-practice multidisciplinary care of breast cancer survivors is currently a key area of cancer research. This was the first study to examine breast cancer survivorship issues and needs in the Gold Coast Breast Service outpatient population, and compare their current care with relevant clinical benchmarks.

Methods: Women who are at least one year after diagnosis of breast cancer completed a self-report measure of unmet needs (CaSUN), and a questionnaire assessing survivorship issues, service usage, satisfaction, and benchmarks.

Results: Participants were 130 women, 82% of which were aged between 46 and 75 years. There was an average of 4.89 unmet needs, with 67% of participants reporting at least one unmet need, consistent across the age groups. The most prevalent unmet needs were fear of cancer recurrence, stress, coordination of medical care, hospital parking, and information provision. Participants' cancer support team typically consisted of medical and nursing staff, and family/friends, contrasted with minimal usage of allied health clinicians and support groups/helplines. Provision of additional dietary and cancer recurrence education, and a written treatment plan/summary were identified as areas of service improvement. The majority of participants provided positive feedback about their medical and nursing care.

Conclusion: Most participants were highly satisfied with their survivorship care at the Gold Coast Breast Service. Nevertheless, ongoing unmet needs were common in this patient group, and usage of multidisciplinary care was variable. Several service improvement initiatives were identified.

Exploring patients' understanding of antibiotic resistance and its influence on attitudes towards antibiotic use for minor illnesses: A qualitative study

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Background/objectives: Little research has explored the public's understanding of resistance, consequences of it, and whether patients consider the threat of resistance when deciding whether to use antibiotics for minor illnesses. This study aimed to explore people's understanding of antibiotic resistance and aspects of resistance (such as resistance reversibility and spread among family members), along with how these influenced attitudes towards antibiotic use.

Methods: In this qualitative study, we conducted semi-structured interviews with 32 patients (or the parents of child patients) who were consulting their GP for an acute respiratory infection. Interviews were audio-recorded, transcribed verbatim, and analysed using thematic analysis independently by two researchers.

Results: Five themes emerged: 1) antibiotic use is seen as the main cause of resistance, but what it is that becomes resistant is poorly understood; 2) resistance is perceived as a future 'big problem' for the community, with little appreciation of the individual impact of, or contribution to it; 3) poor awareness that resistance can spread between family members but concern that it can; 4) low awareness that resistance can decay with time and variable impact of this knowledge on attitudes towards future antibiotic use; and 5) antibiotics are perceived as sometimes necessary, with some awareness and consideration of their harms.

Conclusion: Patients' understanding of antibiotic resistance, its spread and resistance reversibility was poor. Targeting misunderstandings about resistance in public health messages and clinical consultations should be considered as part of a strategy to improve knowledge of antibiotic resistance, which may reduce patients' demands for antibiotics for minor illnesses.

Funding: PhD scholarship_NHMRC (#1044904).

Collaboration and choice when planning for an uncertain future: A mixed methods feasibility study with dementia care-partners and clinicians

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(1) Nursing and Midwifery Research and Education Unit, Gold Coast Health; (2) Menzies Health Institute Queensland, Griffith University; (3) Geriatric Medicine, Princess Alexandra a Hospital; (4) Camp Hill Health Care; (5) Centre for Health Services Research Faculty of Medicine, University of Queensland

Background/objectives: This study aimed to enhance the services currently available within a Brisbane public hospital memory clinic and a general medical practice by examining the feasibility of delivering post-diagnosis information and support to people with mild cognitive impairment (MCI) or dementia in the early-stages and their family carer (the care-partners) within these settings.

Methods: A mixed-method approach was used to explore the delivery and receipt of a structured education and support program in the two settings. Onsite clinicians were trained and supported to deliver the program.

Results: The program was acceptable to the onsite clinicians and supported meaningful care-related planning and decision-making exchanges between the care-partners. The clinicians reported that the focused sessions improved most couples understanding of MCI/dementia and addressed their immediate needs for support and information, this was confirmed by the care-partners. Most carepartners rated the program and session content highly and greatly appreciated the opportunity to discuss their care needs, preferences and concerns with each other and with someone outside of the family. Care-partners shared their plan of longer term priorities and preferences developed during the sessions with their broader support networks (family/friends) and considered this had improved awareness and support for them.

Conclusion: The benefits of improved skills and knowledge of people with dementia and their carers is not only improved wellbeing but also reduced or delayed need for extensive (and expensive) institutional (hospital/nursing home) care. It is anticipated that the study will provide a

blueprint for implementation in hospital and primary health clinic settings.

Funding: Dementia Australia Research Foundation Project Grant 2016.

Aphasia-friendly hospital menus for stroke patients: A mixed methods study exploring perceptions and nutritional intake

Katherine Francis (1), Katina Swan (1), Tanya Rose (5), Marie Hopper (1), Zane Hopper (2), Ian Hughes (3), Melissa Lawrie (1,4), Rachel Wenke (1,4)

(1) Speech Pathology Service, Gold Coast Health; (2) Nutrition and Food Service, Gold Coast Health; (3) Office of Research, Gold Coast Health; (4) Griffith University, School of Allied Health Sciences, Gold Coast Health

Background/objectives: People with aphasia (PWA), a language disorder following stroke, have difficulties choosing hospital meals using standard written menus, potentially resulting in frustration and reduced nutritional intake. Limited research has explored the use of menus which are accessible or “aphasia-friendly” for PWA. We aimed to determine if the use of an aphasia-friendly photo menu changed PWA's' perceptions related to meal ordering and nutritional intake compared to usual hospital menus. Staff perceptions regarding enablers and barriers to its use were also explored.

Method: This mixed methods research recruited 30 PWA, 15 caregivers and five Speech Pathology Therapy Assistants (SPTAs). PWA ordered their meals daily using the aphasia-friendly menu with SPTA support or usual hospital menu presented in random order across a maximum 15-day cycle. Daily nutritional intake (kJ consumed), participant ratings of ease and involvement in meal ordering and menu preference were collected. Caregivers and SPTA perceptions were explored through (a) questionnaires and a (b) focus group and daily log respectively.

Results: PWA rated the aphasia-friendly menu significantly more favourably for ratings of involvement ($p=0.004$) and ease ($p=0.015$), and overall menu preference ($P<0.001$). No significant difference in nutritional intake was

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found. Positive caregiver feedback including increased patient empowerment was reported. SPTAs described barriers and enablers relating to patient, staff and ordering factors influencing implementation.

Conclusion: Aphasia-friendly photo menus may increase ease and involvement in meal ordering for PWA compared to usual hospital menus and are positively perceived by PWA, caregivers and SPTAs. The tool may be a viable and preferred option for PWA when ordering hospital meals.

Funding: Improvers Grant; Allied Health Clinical Backfill for Research Initiative.

Thursday 15th November Themed session 5 Developing and comparing healthcare interventions

Restricted Fluid Resuscitation in Sepsis associated Hypotension (REFRESH): A pilot randomised controlled feasibility trial

Stephen PJ Macdonald (1,2,3), Gerben Keijzers (4,5,6), David McD Taylor (7), Frances Kinnear (8), Glenn Arendts (1,2,9), Daniel M Fatovich (1,2,3), Rinaldo Bellomo (10), David McCutcheon (1,2,3,11), John F Fraser (12), Juan-Carlos Ascencio-Lane (13), Sally Burrows (2), Edward Litton (14), Amanda Harley (4), Matthew Anstey (15), Ashes Mukherjee (11), for the REFRESH trial investigators

(1) Centre for Clinical Research in Emergency Medicine, Perkins Institute of Medical Research; (2) Medical School, University of Western Australia; (3) Emergency Department, Royal Perth Hospital; (4) Emergency Department, Gold Coast University Hospital; (5) School of Medicine, Bond University; (6) School of Medical Sciences, Griffith University; (7) Emergency Department, Austin Hospital; (8) Emergency Department, The Prince Charles Hospital; (9) Emergency Department, Fiona Stanley Hospital; (10) Department of Intensive Care, Austin Hospital; (11) Emergency Department, Armadale-Kelmscott Memorial Hospital; (12) Critical Care Research Group, The Prince Charles Hospital; (13) Emergency Department, Royal Hobart Hospital; (14) Department of Intensive Care, Fiona Stanley

Hospital; (15) Department of Intensive Care, Sir Charles Gardiner Hospital

Background/objectives: Guidelines recommend initial intravenous fluid resuscitation in sepsis with hypoperfusion. Accumulating evidence is challenging this approach. We aimed to determine the feasibility of a volume-sparing/early vasopressor regimen compared to usual care for hypotension due to suspected sepsis.

Methods: We conducted a prospective, randomised, open-label, clinical trial among patients with suspected infection and hypotension in the emergency department (ED) of eight Australian hospitals. Primary feasibility outcome was total fluid administered within the first six hours from presentation. A range of process of care and clinical outcomes were also assessed including vasopressor use, organ failure, and mortality at 90 days post randomisation.

Results: There were 99 participants (50 restricted volume and 49 usual care) in the intention-to-treat analysis. A smaller volume was administered over the first six hours in the restricted volume group compared to usual care (median 30ml/kg vs 43ml/kg, $p<0.001$), along with earlier commencement of vasopressors. Median duration of vasopressor use was 21h in the restricted volume group and 33h in usual care group, $p=0.13$). Rates of ICU admission and organ failure were similar. At 90-day follow up, 4 of 48 (8%) in the restricted volume group and 3 of 47 (6%) in the usual care group had died (OR 1.33, 95% CI 0.28-6.25, $p=0.71$).

Conclusion: A restricted fluid/early vasopressor regimen is feasible. Further investigation of restricted volume resuscitation appears justified. Protocol modifications would be required to optimise recruitment of high-risk patients to deliver sufficient statistical power to determine effects on mortality in this setting.

Funding: The REFRESH trial was an investigator-initiated study funded in part by a grant from the Emergency Medicine Foundation, Queensland, Australia EMSS-229R24-2015, and supported by the participating institutions.

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Intravenous Immunoglobulin for Acute Spinal Cord Injuries [INFUSE] – an open label Phase I/IIa Trial

Esther Jacobson (1), Trisha Jogia (1), Marc Ruitenberg (1), Kate Campbell (2)

(1) University of Queensland; (2) Princess Alexandra Hospital, Brisbane

Background/objectives: Spinal cord injury (SCI) has no effective treatment options and thus leads to chronic disability. Intravenous immunoglobulin (IVIG), a potent immunomodulatory therapy, has shown promising results in pre-clinical studies that examined its effects on post-traumatic inflammation and recovery from SCI. We have translated these findings into an open-label Phase I/IIa trial that is currently recruiting (Princess Alexandra Hospital (PAH), Brisbane). Our main goals are to: a) determine whether initiation of IVIG therapy in acute SCI is both feasible and safe b) obtain exploratory data on patient outcomes.

Methods: Eligible patients admitted to the PAH with an acute traumatic cervical or thoracic SCI will be administered IVIG within 12 hours of injury. Assessment includes neurological examination, patient questionnaires, blood tests and documentation of adverse event incidence and severity.

Results: A total of 13 participants have been recruited to date. Preliminary results indicate an IVIG half-life of ~3 weeks and no safety concerns regarding its administration in acute SCI.

Conclusion: IVIG appears safe as a potential therapy for acute SCI. Efficacy data is yet to be explored.

Funding: CSL Behring University of Queensland.

Partnering with patients and families to promote nutrition in cancer care: The PICNIC study

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Midwifery, Griffith University; (5) School of Nursing, The Hong Kong Polytechnic University

Background/objectives: Patients with cancer face significant nutritional challenges, and families are able to contribute to nutrition care. This study tested the feasibility and acceptability of a patient- and family-centred nutrition intervention among cancer patients at two sites.

Methods: This feasibility study was conducted at an inpatient oncology unit in Australia (AU) and a palliative home-care oncology setting in Hong Kong (HK). The intervention included patient and family participation in nutrition care through: interactive sessions with a dietitian covering the patient's nutrition history, targeted nutrition education and individualised goal setting; and by keeping a daily food diary. Feasibility was assessed through eligibility, recruitment and retention rates; and acceptability was explored through patient, family and clinician interviews.

Results: 53 patients (AU 23; HK 30), 22 family members/caregivers (AU 3; HK 19) and 30 clinicians (AU 20; HK 10) participated in the study. The intervention was considered feasible in the home setting (HK), where it also resulted in improved energy and protein intakes among patients. However, it was not feasible in the inpatient setting (AU), as it was difficult to recruit patients and deliver intervention components when patients were in hospital and acutely ill. Participants were accepting of the intervention, as they highly valued patient- and family-centred aspects such as flexibility to cater for individual needs, and thought it was an excellent way to improve nutrition intake and manage symptoms in the home setting.

Conclusion: A patient- and family-centred nutrition intervention for cancer patients was more feasible in a home setting, where it appeared to improve nutrition intake and was highly acceptable to patients, families and clinicians.

Funding: This study was funded through a Griffith University and Hong Kong Polytechnic University Collaborative Grant.

ConSEPT: Convulsive Status Epilepticus Paediatric Trial

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Shane George (1,2,3) and Stuart R Dalziel (4,5) on behalf of the Paediatric Research in Emergency Departments International Collaborative (PREDICT) research network (6)

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Background/objectives: Convulsive status epilepticus (CSE) is the most common life-threatening childhood neurological emergency and is associated with considerable mortality and morbidity. It has an annual incidence of 17-23 cases per 100,000 children per year, with 22% of patients requiring intubation and ICU admission. There is reasonable evidence to support the use of benzodiazepines in CSE there a paucity of evidence concerning second line anticonvulsant medications, with management guidelines based on expert opinion.

Methods: A randomised controlled trial (RCT) comparing levetiracetam with phenytoin in 200 children, aged between 3 months and 16 years, presenting with CSE who are still seizing after two doses of benzodiazepines. The study occurred across the Paediatric Research in Emergency Departments International Collaborative (PREDICT) research network. The primary outcome for the study is clinical cessation of seizure activity five-minutes following infusion of the study drug. Secondary outcomes include; time to clinical cessation of seizure activity, need for intubation and/or ICU admission, serious adverse events, length of hospital stay, health utility, health costs, and longterm outcome.

Results: N=233; phenytoin = 114, levetiracetam = 119. No difference between treatment groups in primary or secondary outcomes. Levetiracetam is not superior to phenytoin, but there is a reduced incidence of adverse events associated with levetiracetam when compared with phenytoin.

Conclusion: Levetiracetam is an alternative to phenytoin in second line treatment of CSE, with a reduced incidence of adverse events.

Funding: Health Research Council of New Zealand (HRC 12/525) NZ; A+ Trust (Auckland District Health Board) NZ; Queensland Emergency Medicine Research Foundation QLD; Private Practice Research and Education Trust Fund QLD; Eric Ormond Baker Charitable Trust.

Comparison of teats to support successful oral feeding in preterm infants – A randomised crossover trial

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Background/objectives: Oral feeding may be challenging for preterm/medically fragile infants and impact on establishing oral feeding, weight gain and hospital length of stay. High variability across teats affect infants' Suck-Swallow-Breathe (SSB) coordination and transitioning to full oral feeding. We aimed to determine whether the type of teat: Sepal versus Medela, or other factors (e.g. feeding readiness) had an impact on SSB, tolerance of oral feeding and volume ingested per feed.

Method: We used a randomized controlled crossover design. Infants were recruited from the Special Care Nursery at GCUH and randomly assigned to a teat for their first bottle feed and then the alternate teat for their second bottle feed. Nursing staff rated the infants' feeding performance on a Feeding Readiness Scale and Oral Feeding Quality Scale. Linear regression was used to determine correlations between teat, feed order and continuous outcome variables.

Results: 44 infants (50% male) were recruited, mean corrected gestational age 362 weeks (range 344-391

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wks) at first bottle feed. There were no significant differences for type of teat or feed order for the Oral Feeding Quality Scale total or subscores; or feed volume (all $p > 0.05$). Increased feeding readiness ($p < 0.001$) and infant arousal ($p < 0.001$) prior to the feed was positively correlated with better feeding performance.

Conclusion: Sepal and Medela teats had comparable effect for infant feeding performance and feed volume. Improving nursing/speech pathology feeding practices to determine infant feeding readiness behaviours and infant arousal state at the commencement of feeds will improve successful oral feeding for these fragile infants.

Thursday 15th November Themed session 6 Utilising data to improve healthcare

Socioeconomic and geographical factors associated with hospitalised outcomes for major trauma patients: A Trauma Registry analysis

Kathy Heathcote (1), Ben Gardiner (2), Holly Barbagello (1), Jing Sun (1), Martin Wullschleger (2)

(1) School of Medicine, Griffith University; (2) Trauma Service Gold Coast University Hospital

Background/objectives: Injuries remain a significant cause of premature death, morbidity and disability in Australia, and include a disproportionate number of people who are socioeconomically disadvantaged. A number of socio-ecological factors define social disadvantage, however the extent to which various contextual factors affect hospitalised outcomes for trauma patients is unknown. The study aimed to describe the association of socio-ecological factors with in-patient trauma morbidity and mortality

Methods: A retrospective cohort study of adults hospitalised in a Level 1 Trauma Centre with severe injuries between 2014-2017 was conducted. Area-level explanatory variables describing socioeconomic disadvantage and remoteness from services were linked to patient data, including demographics, comorbidity, injury type and severity, and clinical course. The

outcomes were inpatient mortality and length of acute stay days (LOASD).

Results: Of 1025 patients, 77% were male, mean age was 45 (SD 19.46) and median injury severity score was 17 (IQR=12). The cumulative mortality rate was 6.5% and median ALOS was 8 (IQR 14). Socioeconomically disadvantaged people were statistically significantly more likely to live, and be injured in rural areas, be NSW residents and have greater injury severity. Inpatient mortality was significantly and positively associated with age ($X^2=17.31$, $p=0.002$), injury severity ($X^2=83.52$, $p<0.001$), number of comorbidities ($X^2=12.27$, $p=0.007$), remoteness of residence ($X^2=10.56$, $p=0.002$) and injury location ($X^2=13.20$, $p<0.001$). Similar significant associations were evident for LOASD outcome apart from comorbidity (NS) and where the regional hospital was first care provider, compared to the GCUH (K-W H test 2.62, $p=0.016$).

Conclusion: Geographical factors related to socioeconomic disadvantage are associated with adverse hospital outcomes following severe multi-trauma.

Funding: Kathy Heathcote is funded by the Australian Federal Government's Research Training Scholarship (APA) Program

Give pee a chance! The added benefit of PCR of sterile pyuria in ED's for detecting Chlamydia and Gonorrhoea.

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(1) Faculty of Health Sciences and Medicine, Bond University; (2) Emergency Medicine Foundation; (3) Gold Coast Hospital and Health Service; (4) Pathology Queensland

Background/objectives: Chlamydia and gonorrhoea present diagnostic dilemmas due to their asymptomatic presentations. Rates of both sexually transmitted infections (STIs) are increasing. The sequelae of pelvic inflammation, infertility, ectopic pregnancies and increased risk of transmission of other STIs pose a public health and financial risk to individuals and the health care system. Aims to quantify the public-health utility of opportunistic PCR screening for

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chlamydia and gonorrhoea in the emergency department (ED).

Methods: Men and women aged 18 to 29 years, presenting to Gold Coast public EDs between 1/1/2016 31/12/2017, were identified from the pathology database (AUSLAB), if urine was sampled from ED for any reason. White blood cell (WBC) count and organisms grown were extracted to define sterile pyuria as WBC > 10, with no organisms grown. During the period, one pathologist routinely sent cases of sterile pyuria for chlamydia and gonorrhoea PCR testing, regardless of presentation reason.

Results: Of the 5,447 urines collected, 2,788 presented with sterile pyuria (51%); 5% of sterile pyurias underwent PCR testing. Prevalence rates were: Chlamydia 20.3%[95% CI: 14.3-27.6] and Gonorrhoea 3.9% [95% CI: 1.7-8.8].

Conclusion: PCR testing of sterile pyurias in two southeast Queensland EDs yielded many cases, suggesting that opportunistic screening can increase detection and prevent further transmission. However, costs and benefits of universal vs targeted screening should be considered. Furthermore, potential challenges of undertaking preventative health measures in the ED may include: reallocation of resources and staff, current problem-centred approach to care and transient nature of patients in EDs, with loss to follow-up.

Searching EDIS for Records of Suicidal Presentations Using an Evolutionary Algorithm

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(1) Gold Coast Health, Mental Health and Specialist Services; (2) Faculty of Health Science and Medicine, Bond University

Background/objectives: The Gold Coast Mental Health and Specialist Services Suicide Prevention Strategy (GCMHSS SPS) is the largest clinical implementation of the Zero Suicide Framework in Australia, which commenced December 2016. Assessment of outcomes for the GCMHSS SPS, required data on suicidal presentations to be captured from the Emergency Department Information System (EDIS) database. Suicidal

presentations are not uniformly coded on EDIS, previously requiring human assessment to differentiate suicidal presentations from other cases (e.g. accidental injuries).

Method: A software program, Searching EDIS for Records of Suicidal Presentations (SERoSP), was written in MATLAB, using an evolutionary algorithm to weight 136 variables from a training dataset of 3 months of 2015 EDIS data, where suicidal presentations were identified by a psychiatrist (44314 cases). The program “learned” from trial and error, over 150 successive generations, using 100 variations of variable weights per generation, to recognise suicidal presentations, generating a score expressing likelihood that a case was a suicidal presentation. The program was run on a psychiatrist-rated 2017 validation dataset (7786 cases), where ROC curves were used to determine an optimum scoring cutoff for EDIS data, and sensitivity and specificity were calculated.

Results: SERoSP was optimised to be able to detect suicidal presentations with 95% sensitivity and 96% specificity. It was able to detect cases in the validation dataset with 94% sensitivity and 93% specificity at the chosen cutoff.

Conclusion: The SERoSP program reliably, efficiently and cheaply extracts suicidal presentations from EDIS data for GCMHSS SPS evaluation, and it can be further enhanced with more accurate training data.

Funding: Funded by GCMHSS and Bond University.

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Thursday 15th November
Lightning talk session 1

Botulinum Toxin in the management of Temporomandibular Disorders- A Systematic Review

Samuel Thambar (1,2,3), Sachin Kulkarni (2),
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(1) Gold Coast Health; (2) School of Dentistry, Griffith University; (3) School of Medicine, Griffith University

Background/objectives: This systematic review was undertaken with the objective of assessing the efficacy of Botulinum Toxin (BTX) in the management of Temporomandibular Disorders (TMDs).

Methods: A comprehensive search was conducted of PubMed, Scopus, Embase and Cochrane CENTRAL to yield relevant studies from the past 30 years up to and including February 2018. Seven relevant studies were identified, yielding varying results in the effectiveness of BTX in TMDs.

Results: A significant reduction in pain between the BTX group and placebo groups was shown in three studies. While one study showed a clinically significant difference that was not statistically significant, another study comparing BTX with a different novel treatment showed equal efficacy in myofascial pain reduction. However, the remaining two trials showed no significant differences in pain reduction between this intervention and the control. Of the four studies where mouth opening capacity was assessed, BTX therapy showed a slight improvement in mouth opening capacity in two studies, no improvement in one study and worsening of condition in a different trial. A meta-analysis was not performed due to considerable variation in study designs, heterogeneity between study groups and differing assessment tools utilised between studies.

Conclusion: Despite showing benefits, there is lack of clear consensus on the therapeutic benefit of BTX in the management of myofascial TMDs. Further randomised controlled trials with larger sample sizes, minimal bias and longer follow-up periods should be carried out in the future. This review will aim to outline the findings of these studies, describe the

varying study methods and evaluation of results, while also exploring differing opinions regarding BTX injection methods, dosage and follow up. The clinical implications of Botulinum Toxin and its overall importance in the context of conservative management options for TMD will also be explored.

Fibrinogen Concentrate vs. Cryoprecipitate in severe traumatic haemorrhage in children: A pilot randomised controlled trial

James Winearls (1), Christa Bell (1), Elizabeth Wake (1), Glen Ryan (2), James Walsham (2), Catherine Hurn (3), Jeremy Smith (4), Greg Wiseman (4), John Roy (5), Roy Kimble (5), Shane George (1)

(1) Gold Coast University Hospital; (2) Princess Alexandra Hospital; (3) Royal Brisbane and Womens Hospital; (4) Townsville Hospital; (5) Lady Cilento Children's Hospital

Background/objectives: Trauma causes 40% of child deaths in high income countries, with haemorrhage being a leading cause of death. Hypofibrinogenaemia plays a significant role in traumatic haemorrhage and is associated with worse outcomes, particularly in children. Early fibrinogen replacement may reduce haemorrhage and improve outcomes. This study will assess the effects of a targeted dose of Fibrinogen Concentrate (FC) vs standard care (Cryoprecipitate) in traumatic haemorrhage. FEISTY Junior aims to replicate FEISTY, appropriately modified for the paediatric population. Hypothesis: Fibrinogen replacement in traumatic haemorrhage can be achieved quicker using FC compared to Cryoprecipitate. Primary Study Aim: Investigate the feasibility of early fibrinogen replacement in traumatic haemorrhage utilising either FC or cryoprecipitate.

Method: Multi-centre, randomised controlled, un-blinded, feasibility pilot study.

Results: Primary Outcome Measure: Time to administration of Fibrinogen Replacement from presentation at the Trauma Centre. Secondary Outcome Measures: Transfusion requirements; Duration of bleeding episode; ICU and Hospital LOS; Duration of Mechanical Ventilation; Adverse Events. Inclusion: Patient between 3 months and 17 years affected by Trauma; Judged to have significant haemorrhage OR Predicted to require significant

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transfusion by treating clinician judgement; Activation of local MHP or transfusion of emergency red cells. Intervention: 44 patients randomised into FC (Intervention) or Cryoprecipitate (Comparator) arms. Requirement for fibrinogen replacement triggered by pre-specified ROTEM values.

Conclusion: This study will add to the evidence base in paediatrics as currently there are no published studies comparing FC and Cryoprecipitate in the paediatric population.

Funding: Emergency Medicine Foundation.

A review of the arrival coagulation, full blood count and blood gas profiles of trauma patients receiving pre-hospital packed red blood cell transfusions

Daniel Bodnar (1,2), Nathan Brown (2), Zoe Stevens (2), Sue Williams (2), Micahel Handy (2), Martin Wullschleger (3), Glenn Ryan (1,4), Stephen Rashford (1)

(1) Queensland Ambulance Service; (2) Royal Brisbane Women's Hospital; (3) Gold Coast University Hospital; (4) Princess Alexandra Hospital

Background/objectives: The objectives of this retrospective review were to characterise the laboratory profiles of patients transported to the South East Queensland Adult Trauma Services (SEQATS), and to identify potential therapeutic targets for optimisation during pre-hospital (PH) care.

Methods: Patients treated with packed red blood cells (pRBCs) by a metropolitan, road-based high acuity response unit between January 1, 2012 and December 31, 2016 were identified from databases at SEQATS, Pathology Queensland Central Transfusion Laboratory, Gold Coast University Hospital blood bank and Queensland Ambulance Service.

Results: 174 patients with laboratory samples taken within 60 minutes of Emergency department presentation were included in the analysis. Blunt trauma was the predominant mechanism of injury (78.2%). Over 96% of patients received ≤ 2 units of pRBC pre hospital. Three quarters of patients received ≥ 4 units of pRBCs within four hours of presentation. The injury severity score was [median(IQR)] 33 (18-

42.5) and 123 (70.7%) patients survived to hospital discharge. In general, the patients had marked metabolic derangements with pH [median(IQR)] of 7.18 (7.08-7.27), lactate of 4.6 (3.18-7.23) mmol/L, and ionised Calcium of 1.12 (1.07-1.17) mmol/L. Sixty-two percent of patients had a high INR (>1.2) with 24.2% having a fibrinogen ≤ 1.5 g/L and 27.8% having a Fibtex A10 < 8 . The ROC curve analysis for fibrinogen ≤ 1.5 g/L and INR gave an area under the curve of 0.93 (95% CI: 0.86-1.00), with an INR ≥ 1.6 having a sensitivity of 80.6% (95% CI: 64.0-91.8) and specificity of 90.57% (95% CI: 83.3-95.4).

Conclusion: We conclude that hypocalcaemia and hypofibrinogenemia are feasible therapeutic targets for intervention during PH care.

Alcohol related presentations to the Emergency Department: A multi-site review of prevalence and profile based on high and low alcohol times

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(1) Gold Coast Hospital and Health Service; (2) Griffith University; (3) Royal Brisbane and Women's Hospital; (4) Townsville Hospital and Health Service

Background/objectives: Alcohol is a leading risk factor effecting population health. Excessive consumption is a casual factor in more than 200 disease and injury conditions and is one of the largest preventable public health issues (WHO, 2018; ACEM, 2016). The true extent of the impact of alcohol related presentations to emergency departments (EDs) is likely underestimated (EgertonWarburton et al. 2017). The aim of this sub study is to describe the prevalence of alcohol related presentations made to two EDs and describe outcomes based on 'high alcohol times' (6pm Friday 6am Sunday) and 'low alcohol times' (rest of week).

Method: This is a sub study of a larger multi-site observational study undertaken in EDs in Queensland. Data used pertained to ED presentations made between April 1 2016 and August 31 2017 where the clinician perceived alcohol contributed to the presentation. A description of the profile and outcomes of patient presentations made during high and low alcohol times were compared.

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Results: Alcohol related presentations comprised 3.5% and 3.6% of ED presentations to Site A and Site B respectively. Results pertaining to presentations made during high and low alcohol times is currently being analysed and will be presented at the conference.

Conclusion: For this cohort of vulnerable patients, findings will provide evidence to further inform service development.

Funding: Funding received from the Healthcare Improvement Unit within the Queensland Government's Clinical Excellence Division supported the conduct of this study.

Nutritional care of cardiac patients

Ms Katie Williams (1), Ms Samantha Humphries (2) Dr Rebecca Angus (1), Dr Lynda Ross (2)

(1) Nutrition and Food Services, Gold Coast Health;
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Background/objectives: Nutrition education following a cardiac event can improve diet quality and aid disease management and prevention. Guidelines recommend provision of nutrition education as part of cardiac rehabilitation (CR). There are no previous studies detailing the proportion of cardiac patients who receive nutrition education as inpatients, or whether this is associated with attendance at outpatient sessions.

Methods: A retrospective chart audit was conducted, examining provision of nutrition education to inpatients with ischaemic heart disease and heart failure, and subsequent attendance at outpatient cardiac services.

Results: Most patients received nutrition education, however 86% received written education (My Health My Life book). Only 21% of patients received verbal nutrition education. Coronary Artery Bypass Graft (CABG) patients accessed group nutrition education from a dietitian during admission, hence received more verbal nutrition education compared to other cardiac patients ($P<0.01$). A 50% attendance rate was recorded for patients referred to outpatient CR programs, however, only 65% attended the nutrition components. Most of these patients (70%) attended a fast track session, while 30% attended the stand-alone

nutrition education sessions. Patients were significantly more likely to attend outpatient nutrition education sessions if they received verbal nutrition education ($p=0.004$) or encouragement to attend ($p=0.006$) during admission.

Conclusion: A large proportion of cardiac patients who would benefit from nutrition education are missing out. For patients that do not attend outpatient sessions, inpatient admission provides the only opportunity for evidence-based nutrition education. It is evident that provision of verbal nutrition education to inpatients is associated with increased attendance at nutrition-related outpatient sessions.

Paediatric surgical follow up clinical audit

Mary Good (1), Natasha McNamara (1), Adelene Houlton (1), Jennifer Ah Toy (1)

(1) Paediatric Surgery, Gold Coast Health

Background/objectives: Post-operative follow-up for paediatric surgical patients has traditionally being an in-person review, comprising targeted history, physical examination, interpretation of investigations and future management planning. This method of follow-up incurs a considerable cost to the healthcare facility, patient and their family. Recent research has demonstrated the safety, utility and cost-efficiency of phone clinic follow-up for select surgical procedures in paediatric and adult populations. This audit aims to identify paediatric surgical procedures that would be safe to follow up via phone clinic. Costing of in-person versus phone clinic follow up will also be reviewed. It is anticipated that the results of this study will be utilised to organise a prospective study analysing the outcomes of a newly-implemented phone clinic for post-operative follow up.

Methods: A retrospective audit of all paediatric surgical patients undergoing an operation between 01/01/2018 – 30/06/2018. Patients were categorised according to procedure type. The primary outcome measure is post-operative adverse events first detected in clinic. The secondary outcome measure is time to post-operative follow up. Data was collected from electronic medical records and collated in an excel spreadsheet. Ethics approval was requested via the Gold Coast Hospital and Health Service Human Research Ethics Committee.

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Results: -

Conclusion: Data collection is complete and data analysis has commenced. It is anticipated that this audit will identify several paediatric surgical procedures that are safe to follow up via phone clinic.

Point-of-Care Echocardiography (ECHO) in cardiac arrest: A descriptive study of practice in southeast Queensland

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(1) Department of Emergency Medicine, Gold Coast University Hospital

Background/objectives: ECHO is a non-invasive adjunct to advanced cardiopulmonary life support (ACLS). Literature supports its role in prognostication and guiding ongoing resuscitation, identifying reversible causes and guiding therapeutic interventions; particularly in non-shockable rhythms. Our objective is to determine the two hospitals' utilisation of ECHO during ACLS.

Methods: All cardiac arrests presenting to Gold Coast University Hospital or Robina Hospital between January and September 2017 were identified by Emergency Department Information Systems coding. Three independent reviewers conducted a retrospective review of Electronic Medical Records.

Results: Of the 91 eligible cases of cardiac arrest, 54%(n=49) received ECHO; 31% during ACLS and 69% post return of spontaneous circulation. By underlying rhythm, ECHO was performed for 74% pulseless-electrical-activity (PEA) arrests, 69% in asystole, and 36% in ventricular tachycardia/fibrillation (Fig.1). Reversible causes were identified by ECHO for 12% overall; two cases of tamponade and four cases of pulmonary embolism (PE) showing right-ventricular strain. These all came in arrests with PEA/asystole. Eleven (22%) ECHOs ended up making a significant difference to ED management; all cases of PEA/asystole. On nine occasions ACLS was promptly ceased due to cardiac standstill, one PE was thrombolysed (deceased in ED) and one tamponade received pericardiocentesis (survived to admission).

Conclusion: ECHO is an evidence-based adjunct in the resuscitation of the arrested patient. There is scope for improvement in its utilisation locally in the appropriate setting; with benefit mostly for non-shockable rhythms.

Integrated Care on the Gold Coast: How design thinking supported the development of integrated models of care

Christina Wicker (1), Rachael Smithson (1)

(1) Centre for Health Innovation, Gold Coast Health

Background/objectives: In July 2017 the Integrated Care Alliance was formed between the Gold Coast Hospital and Health Service and the Gold Coast Primary Health Network, with a joint vision to create an integrated and truly person-centred approach to health service delivery. This paper considers the impact of a 'design thinking' approach to engagement on effective communication and decision-making across stakeholders.

Methods: Design thinking aims to promote consumer-centric, innovative problem solving and develop integrated, coordinated models of care. The key principles of design thinking are: researching, empathising, and defining the problem; ideation; prototyping, testing and iteration; implementation.

Results: 45 clinical workshops and 23 consumer validations were conducted, to define the service delivery needs of consumers and develop integrated models of care. This was an iterative process of design, testing, and validation. The models developed by the clinical groups and consumers were compared and enhanced based on consumer feedback received.

Conclusion: Design thinking enabled consumers and clinical experts from all sectors to focus on an ideal model of service delivery, disregarding current constraints, silos and agendas. Clinical expert groups were highly engaged and motivated in the process, which has started to foster accountability for the developed models and supported interorganisational collaboration. Design thinking supported the development of integrated models of care, and engagement with heterogeneous groups of stakeholders and consumers. It encouraged innovative thinking, problem solving and collaboration across

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different organisations and sectors to collaboratively develop a more effective model of service delivery.

A prospective cohort study of caregiver resilience on outcomes following severe traumatic physical injuries: Pilot study results

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(1) School of Medicine, Griffith University; (2) Trauma Service, Gold Coast University Hospital

Background/objectives: Studies report ongoing pain, disability and impaired quality of life for many severely injured trauma survivors. Variations in recovery patterns could be related to resilience in their informal caregivers however empirical evidence is sparse. The aim of this pilot prospective cohort study was to describe associations of baseline caregiver resilience with health-related quality of life. The primary outcomes were the physical and mental health domains of the SF-12 health survey.

Methods: Eligible adult trauma patients and carers were recruited from GCUH. Data were collected on resilience, physical health, health care use, socio-demographic factors and family, occupational, community and health service support.

Results: Of 364 patients screened, 66 (18%) met eligibility, and 50 (80%) dyads participated. Caregivers accessed health services, on average 5 times (SD 5.8) in the 6-month period prior to the injury and estimated on average, 21 hours per week would be spent caring for patients. The internal consistency for the CD RISC-10 was $\alpha=0.85$. Caregiver resilience was positively associated with self assessed general health ($F=4.9$, $p=0.005$) and physical function ($r^2=0.43$, $p=0.003$). Of the 8 HRQoL dimensions, the mean scores of role-physical (73), general health (53), vitality (61), social functioning: (83), role-emotional (73.9) and mental health (68.7) were below the Australian Population norms.

Conclusion: A full-scale prospective study is feasible and can inform methods for ongoing trauma outcome research and surveillance. Prior to the onset of caregiving, HRQoL of informal carers is mostly below the Australian norms, and resilience is positively

associated with perceived general health and physical function.

Funding: Kathy Heathcote is funded by the Australian Federal Government's Research Training Scholarship Program (APA Scholarship).

Domestic and family violence screening in the emergency department: Current practice and barriers to routine screening in Queensland

Caitlin Bourke (1), Meghna Sharma (1), Henna Eqbal (1), Thomas Torpie (2), Amy Sweeny (3)

(1) Bond University School of Medicine; (2) Gold Coast Health Emergency Department; (3) Research Office, Gold Coast Health Emergency Medicine

Background/objectives: Domestic and family violence (DFV) is a major cause of morbidity and mortality for adults in Australia. In spite of this, there is no established protocol for routine screening in Queensland emergency departments (EDs). This project examines the current screening practices and culture that exist within Queensland EDs, whilst identifying the barriers to routine screening that may exist.

Method: Eight EDs across Queensland contributed to the project via an online survey carried out over two weeks. A literature review was also conducted to identify current national and international recommendations and effectiveness of routine DFV screening. The data was quantitatively analysed, with common barriers and attitudes towards screening being identified. This report discusses the results of Gold Coast Hospital and Health Services (GCHHS) ED staff, and more specifically, the results pertaining to current screening practice and management of DFV.

Results: The results indicated that a limited number of clinicians were attempting to identify DFV, and if so were mainly 'screening' symptomatic patients. Management largely relied around referring patients to support services.

Conclusion: Overall, although GCHHS staff supported routine screening, the vast majority had a limited understanding of DFV screening and the specifics of management. Encouraging education and

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enforcing standardised screening protocols may aid in implementing routine screening of DFV.

Funding: Emergency Medicine Foundation.

Incidence, outcomes and treatment tolerance in EGFRm and ALK-rearrangement positive NSCLC treated with tyrosine kinase inhibitors

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Background/objectives: Non-small-cell lung cancer with mutations of the epidermal growth factor receptor (EGFRm) and anaplastic lymphoma kinase (ALK) gene rearrangement have been shown to have a favourable response to treatment with tyrosine kinase inhibitors (TKIs).

Methods: Retrospective audit including patients who presented to the Gold Coast Health Service from January 2015 to December 2017 with NSCLC. Data was collected for EGFRm/ALK positive patients on survival, performance status, pulmonary function and treatment tolerance.

Results: A total of 543 patients were included, with 49 found to have EGFR mutation (7.7%) or ALK rearrangement (1.2%) positive cancer. Complete clinical data was available for review in 46 patients. The mean age of the 46 patients was 67 (± 2) years and 29 (63%) were female. At the time of initial diagnosis, 31 (67%) had stage IV disease and performance status was ECOG 0 in 12, I in 19, II in 7 and III in 2 patients (4 patients had missing data). Molecular analysis identified an EGFR mutation in 38 patients and ALK was positive in 7 patients. 28 patients received tyrosine kinase inhibitors, 7 patients immunotherapy and 22 patients received conventional chemotherapy. 84% of patients with metastatic disease were treated with TKIs; many patients received chemotherapy prior to confirmation of mutation status or after progression while on TKI treatment. Adverse effects were common and was reported in 26 patients.

Conclusion: The incidence of mutations to EGFR/ALK were lower than the national average. Side effects were common with intolerance leading to reduced dose/duration of treatment in some patients.

Discharges against medical advice: Are we fulfilling our medico-legal requirements? A clinical audit review.

Jannat Islam (1), Gautam Pisapati (1), Dr Chanelle Simpson (2)

(1) Bond University; (2) Gold Coast Hospital and Health Service

Background/objectives: Discharge against medical advice (DAMA) in Australian emergency departments (ED) is a very common problem. Patients who self-discharge are at increased risk of developing preventable morbidity and mortality. The objective of this study therefore is to assess the current use of the DAMA Form, and/or appropriate documentation of DAMA at the Gold Coast University Hospital (GCUH) to ensure the medico-legal requirements are being fulfilled.

Methods: Conduct a literature review and legal research on DAMA. Perform a clinical audit of all patients recorded as DAMA from GCUH ED for a 12-month period. The electronic medical records of these patients will be reviewed to determine if the DAMA form was used and whether competence to self-discharge was assessed.

Results: Currently, there is no Australian state or federal law which have directly legislated on DAMA however case law precedence is available in two NSW Supreme Court cases. There has been only one successful medical negligence claim against an NSW hospital after the patient had selfdischarged from ED. Results of the audit revealed that the DAMA Form was incorrectly filled out most of the time and documentation was adequate majority of the time.

Conclusion: The DAMA Form is a legal document which will be upheld in Court in a medical negligence case and therefore the Form needs to be filled out correctly. However, the DAMA Form does not replace the adequacy and requirement of thorough clinical documentation. More research and education is

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required in this area to ensure medico-legal requirements are being fulfilled.

Blood alcohol levels; if you're too drunk to drive, are you too drunk for surgical consent?

Sophie West (1,3), Kleopatra Markou (2), Meghan Rozmahel (2), Francois Tudor (1,3), Martin Wullshleger (4,2), Randipsingh Bindra (1,2)

(1) Department of Orthopaedic Surgery, Gold Coast University Hospital; (2) School of Medicine, Griffith University; (3) School of Medicine, Bond University; (4) Department of Trauma, Gold Coast University Hospital

Background/objectives: Gold Coast University Hospital sees over 300 incidents of alcohol-related trauma per calendar year and the majority of these patients require orthopaedic cares for their injuries. Frequently these patients present with injuries requiring timely operative intervention, and the question then arises - are the consents we obtain valid if our patients are showing clinical signs of intoxication at the time? If they would legally not be able to drive, are they able to give consent for surgery?

Methods: In order to understand our current clinical practice in these situations we audited our alcohol-related trauma admissions between the years of 2015-2017. Data was obtained from the TRIS Trauma database, meaning that all patients included in this audit met the trauma-inclusion criteria based on one mechanism of injury. Major traumas requiring red-blanket transfer to theatre were excluded, as were poly-trauma patients requiring intervention from other surgical teams in the first 24 hours of admission. All other patients requiring admission for acute / operative management of orthopaedic injuries with documented clinical signs of intoxication and / or BAL >0.05 and / or admission to intoxication at the time of injury were included in this review. We reviewed this population of patients consent forms for operative management and noted the timing of the consent process and whether the patients alone consented or whether next-of-kin / guardianship consent was sought.

Results: We found that >80 % of patients were deemed competent to consent for surgery themselves within 24 hours of admission and no next-of-kin consent was sought. Competence / capacity calls were made solely on clinical assessment rather than repeat

/ requested BALs. No patient complaints were made regarding levels of intoxication at time of surgery or subsequently.

Conclusion: In conjunction with our legal department we have developed a guide for consent process in the above population of patients. When in doubt it is safest and most defensible to consent both the patient and their next-of-kin / guardian when timely operative intervention is required in the setting of a patient who has presented in an intoxicated state.

Paediatric botox injections for chronic constipation

Adelene Houlton (1), Richard Thompson (1)

(1) Department of Paediatric Surgery, GCUH

Background/objectives: Intersphincteric anal botox injection is a relatively new procedure and has been shown to be effective for chronic constipation in children. We aim to review pre-operative symptomatology and management as well as post-operative outcomes for paediatric patients who have had intersphincteric anal botox injections.

Methods: A retrospective chart review for all (estimated 30-40) patients who have had intersphincteric anal botox injections since the practice started at Gold Coast University Hospital from 2015 to 2018.

Results: Duration of symptoms and pre-operative management is expected to be variable as patients are referred from a variety of sources. Outcomes measures will include number of botox injections required, duration of effect and progression to more invasive surgical management e.g. myectomy or antegrade continence enema.

Conclusion: We hope this audit will guide us in providing improved education for those referring to the surgical service (allied health, community health, general practitioners, paediatricians) about the procedure and its potential. Results will guide counselling about post-operative expectations for patients and carers.

Chest trauma on the Gold Coast: An observational study

Lightning talk and poster abstracts

Pranav Sharma (1), Amir Mehanna (1), Ben Gardiner (2,3), Don Campbell (2), Martin Wullschleger (2,3)

(1) Bond University; (2) Gold Coast Hospital and Health Service; (3) Griffith University

Background/objectives: Intercostal chest (ICC) insertion has complication rates as high as 30%, with a growing trend toward managing these injuries expectantly.¹ The aim of this study is to determine the natural history and outcomes of managing chest trauma both conservatively and with ICC insertion.

Methods: A single centre retrospective review of all patients who presented to Gold Coast University Hospital (GCUH) with traumatic chest injuries was conducted from 1st March 2015 to 1st March 2017. Demographic data was collected through the hospital trauma registry and subsequent review of electronic medical records helped determine complications resulting from ICC insertion and patients for whom conservative management had failed.

Results: A total of 280 patients presented to GCUH with chest trauma during the study period. Only 230 met the inclusion criteria. One-hundred-and-two patients were managed with ICC insertion and 128 managed conservatively. The majority of patients were male (80%), with blunt trauma (91%) being the most common mechanism of injury. A total of 156 chest drains were placed in 102 patients. Thirty complications occurred in 156 drain insertions (complication rate of 19.2%). The most common complication was chest tube malfunction (24/30). Further interventions (e.g. VATS, thoracotomy, IR) were required in seven patients. There was no mortality with ICC complications. Six cases from the conservative group (6/128) failed expectant management and required intervention (failure rate of 4.7%).

Conclusion: Most common complication of ICC insertion in our study was chest tube malfunction. Selective conservative management of traumatic pneumothorax appears a relatively safe approach.

Intravenous cannulation on the wards: What happens with difficult-to-cannulate patients?

Michael Nye (1,2), Amy Sweeny (2), Jay Ingold (2), Paul Sharwood (2), Stuart Watkins (2)

(1) School of Medicine, Griffith University; (2) Emergency Department, Gold Coast Health

Background/objectives: Placement of an Intravenous Catheters (IVCs) is often necessary for hospital-based patients. Some patients (no vein seen, overweight/underweight, history of difficult access, etc.) are difficult to cannulate. Multiple IVC attempts decrease satisfaction and cause treatment delays. At the Gold Coast Hospital & Health Services (GCHHS), the Clinical Team Coordinator nurses (CTCs) have been trained to place IVCs with ultrasound (USS) guidance.

Method: From 1 January 2017 to 13 July 2018, CTCs prospectively collected data on their activity using a mobile tablet and a purpose-designed database. CTCs categorised activity at the time of callout (eg. Code Black, Met Call, ICU discharge day one, IVC-USS assist), recording data on referral ward, referral person, reason IVC was needed (antibiotics, drugs, bloods, etc.), patient characteristics, number of IVC attempts prior to call-out, CTC attempts, and delay in treatment. All entries marked IVC-USS assist were extracted and summarised in Excel.

Results: During the period, 208 callouts were for IVC-USS assists. For 19 patients (9%), callouts occurred after cannulation was attempted six or more times; 47% (97) of cases had at least 3 previous attempts before a callout; 11% (22) had a 6-hour or greater delay. IVC-USS callouts were most commonly received after hours (67%), from the afterhours clinical team (40%), from Ward C2E (19%), and for IV antibiotics (41%). IVC-USS assists averaged 1.3 attempts per callout.

Conclusion: Many patients have multiple attempts at cannulation; cannulation difficulty causes delays. Increasing knowledge and skills on predicting cannulation difficulty, and adjuncts that can assist, including USS, may improve patients' cannulation experiences.

Reducing the burden of the injury severity score

Ben Gardiner (1,2), Don Campbell (1), Kate Dale (1), Martin Wullschleger (1,2)

(1) Gold Coast Hospital and Health Service; (2) Griffith University

Lightning talk and poster abstracts

Background/objectives: Upon commencement of the trauma service at GCUH, we invested in coding all trauma service patients. With presentations increasing and short length of stay (LOS) dominating presentations (<48hr 64%) it was evident that the resources required in maintaining an up-to-date registry and code all patients seen was labour intensive and expensive.

Method: Retrospective review of the trauma registry data on patients' LOS and ISS was undertaken for the study period Jan 2014- Jun 2018 and included all cases where date/time fields were completed (n=6679). The selection of time periods from presentation to discharge of <48hrs, <36hrs, <24hrs, <18hrs, <12hrs and <6hrs was reviewed to establish >99% point where the capture of ISS>12 would occur and if additional criteria such as ICU LOS, not transferred out for acute care, transferred in from a Referring Hospital, deceased or ED Discharge destination, would improve the capture matrix for coding.

Results: Our matrix identifies the coding of all presentations to ED with a mechanism of injury or meets physical parameters of trauma and any one of the following: • presentation to discharge >18hrs, • hospital referred, • transfer out for acute care, • deaths, • any ICU admission • where ED Discharge was to operating theatre or interventional radiology.

Conclusion: This combination captures 99.6% of all major traumas with a screening predictor of 31.8%. Existing process of clinical judgement remains for enhanced capture. This process would have reduced the coding burden in 2017 by 61.5% or based on the NTDS, 2.1 FTE.

Early in-reach rehabilitation for trauma patients at a major trauma centre

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(1) School of Medicine, Griffith University; (2) Trauma Services, Gold Coast University Hospital; (3) Rehabilitation Services, Gold Coast University Hospital

Background/objectives: To present initial data and describe the model of care of a novel clinical acute rehabilitation intervention service with a focus on

trauma patients. This service provides multidisciplinary rehabilitation management on acute wards prior to the conclusion of the acute episode of care. Principle aims of the service are to reduce overall length of stay; improve function at discharge from hospital; reduce deconditioning; and facilitate comprehensive discharge planning.

Method: A descriptive review of trauma patients that have utilised the in-reach Rehabilitation Response Team, (RRT) over a 24-month period, April 2016 to April 2018. Outcome scores including Functional Independence Measure (FIM), De Morton Mobility Index, Patient Specific Functional Scales as well as Injury Severity Score, Demographics and length of stay are measured. The multidisciplinary team is supervised by a rehabilitation consultant and allied health team leader. Ongoing formal and informal audit of workflow and outcomes is undertaken to ensure the quality improvement of the service.

Results: Since hospital-wide RRT implementation, 111 Trauma patients (23 female, 88 male) with a mean age of 50 years have utilised the service over a 24-month period. Mean length of stay on the program was 10 days and overall FIM efficiency was 2.04. Other relevant outcome metrics, as well as referrer and patient feedback will also be presented. Challenges and positive achievements encountered throughout this process are reported.

Conclusion: We present the implementation of a novel in-reach rehabilitation service in the setting of acute trauma at the Gold Coast University Hospital.

Clinical sepsis pathway implementation in EDs; a learner's guide to building a successful translation

Amanda Harley (1), Debbie Massey, (2), Luregn Schlapbach (3), Amy NB Johnston (4,5)

1) Clinical Nurse Consultant: Statewide Paediatric Sepsis, Critical Care Nursing Management Team, Children's Health Queensland Hospital and Health Service; (2) School of Nursing, Midwifery and Paramedicine, University of Sunshine Coast; (3) Paediatric Intensive Care Unit and Statewide Paediatric Sepsis Critical Care Management Team, Lady Cilento Children's Hospital; (4) Department of Emergency Medicine, Princess Alexandra Hospital,

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Metro South Health; (5) School of Nursing, Midwifery and Social Work, The University of Queensland

Background/objectives: The first paediatric sepsis pathway is currently being introduced to EDs across QLD. However, implementation of clinical practice guidelines is notoriously difficult. Our previous work has identified the critical role of educating and empowering ED nurses for successful clinical care around sepsis (1). In this study we sought to identify key elements or components required for a multidisciplinary team to successfully implement a clinical pathway into mixed EDs across QLD. We explore and report on processes required for, and barriers to, sepsis pathway integration into paediatric EDs.

Method: The implementation strategy adopted encompassed elements of best practice (2,3). These included overcoming internal and external barriers such as lack of interest in changing current practices, lack of perceived usefulness of the guideline, lack of support from administrative or leadership staff, lack of education, lack of required equipment or space, lack of time, and a heavy patient workload(3). A process of national and international consultation in the development of the guidelines and implementation strategies was used, with the awareness of contextual and local variances across each department.

Results: Educational outreach visits by experienced ED nurses who are familiar with the clinical context in which the pathway is to be used, coupled with a local champion, were adopted to enhance awareness of and familiarity with the pathway components.

Conclusion: Visions for the longevity of the pathway were also considered, with the integration of resourcing an online learning module for sustainability. Finally, ongoing audit and dynamic feedback moderation were used to enhance utility of the pathway.

The quest for quality and performance indicators in mass disasters: Gold Coast Hospital and Health Service (GCHS) plots a course

Amanda Samsuddin (1), Yuet Ling Lui (1), Cindy Huang (1), Nathan Watkins (2), Peter McNamee (3), Naomi Muter (3), Dan Byron (2), Amy Sweeny (2)

(1) School of Medicine, Griffith University; (2) Emergency Department, Gold Coast Health; (3) Operations, Disaster and Emergency Response, Gold Coast Health

Background/objectives: Due to a lack of standardised indicators, it is currently difficult to gauge improvements in mass casualty preparedness within a hospital. A specific, narrow list of indicators could be adopted to firstly, track hospitals performance in disaster response, and secondly, be used as a benchmark for quality. This study aims to explore the use of two indicators (decanting and chain of command) to gauge the effectiveness of multi-disciplinary hospital wide teams in managing multiple casualty incidents.

Methods: In February 2018, Robina Hospital held an Emergo Train System mass casualty exercise modelled on 86 casualties resulting from a train disaster. During this exercise, two proposed indicators were measured; 1) Intensive Care Unit (ICU) and Emergency Department (ED) decanting times, and 2) the exercise participants' ability to correctly identify their immediate supervisor (chain of command).

Results: Intensive Care Unit required 40mins to decant beds by 50%, while ED required 25mins to decant beds by 80%. With regards to chain of command, ED and triage staff performed best, with 66.7% correctly identifying their immediate supervisor. This was followed by the peri-operative staff, with 50% correctly identifying their immediate supervisor. No ICU or radiology staff were able to correctly identify their immediate supervisor. Overall, staff members performed better in their ability to correctly identify immediate supervisor compared to team leaders (59.3% and 40% respectively).

Conclusion: This study demonstrates that indicators can be used as a measure of disaster response effectiveness, leading to the identification of areas and opportunities for improvement.

Right patient to the right hospital: A study of the prehospital trauma bypass procedure and its application in elderly trauma patients

Shaney Maull (1), Don Campbell (2), Elizabeth Wake (3), Martin Wullschleger (4), Elaine Cole (5), Stephen Rashford (6), Nathan Hui (7), Emily Horan (8)

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(1) Trauma Research Office, Gold Coast Health. Queen Mary University of London; (2) Trauma Research Office, Gold Coast Health; (3) Trauma Research Office, Gold Coast Health; (4) Trauma Research Office, Gold Coast Health; (5) Queen Mary University of London; (6) Queensland Ambulance Service; (7) School of Medicine, Griffith University; (8) Faculty of Health Sciences and Medicine, Bond University

Background/objectives: The trauma by-pass protocol is implemented by Queensland Ambulance service (QAS) to ensure the right patient is taken to the right hospital within Gold Coast Health Service. This study assesses the application of this protocol to elderly patients to determine: - The frequency of over- and under-triage; - The effects of triage and transport decision on patient outcomes.

Methods: A retrospective observational study analysing patients ≥ 65 years presenting to Gold Coast University Hospital (GCUH) or Robina Hospital (RH) via QAS, with and ICD-10 trauma code between 1/6/2016 and 31/12/2016. Data was extracted from electronic medical records, Trauma Registry, and Queensland Ambulance records. Statistical analysis was performed using Chi-square, MannWhitney U and independent t-tests.

Results: 724 eligible patients were included. Patients transported to GCUH were younger (79 v 81 $p=0.001$) and transported from their own residence (62.2% v 50.95% $p=0.02$) as opposed to aged care facilities like those from RH (19.5% v 30.4% $p=0.001$). 10.3% of patients were under-triaged and incorrectly transported according to the observation trigger. There was no significant difference between increasing age and triage/transport status. Fall was the most common cause of injury (87.3%). The most common cause of death was traumatic brain injury (75%), and there was no association between mortality and triage status.

Conclusion: QAS are effective at identifying and transporting trauma patients to the right facility, however, older patients are more likely to be transported to the regional hospital. This infers paramedic decision making can determine transportation destination in the elderly trauma population.

Thursday 15th November Lightning talk session 2

Influence of inpatient dietary restriction and post-discharge dietary fibre intake on recovery from acute uncomplicated diverticulitis

Sophie Mahoney (1), Megan Crichton (1), Julie Jenkins (2), Romina Nucera (2), Camilla Dahl (1), Skye Marshall (1)

(1) Faculty of Health Sciences and Medicine, Bond University; (2) Nutrition and Dietetics Department, Robina Hospital

Background/objectives: To assess the impact of inpatient dietary prescription and dietary fibre intake post-discharge on healthcare use and gastrointestinal symptoms in patients with acute, uncomplicated diverticulitis.

Methods: Prospective observational study comparing inpatient restricted diet ($n=31$) and liberalised diet ($n=29$) of patients admitted to Robina Hospital, and low fibre diet ($n=39$) with high fibre diet ($n=6$) 30 days post-discharge. The primary outcome was length of stay for assessing the impact of inpatient diet prescription. Outcomes for assessing the effect of outpatient diet were gastrointestinal symptoms, readmission, reoccurrence and GP visits.

Results: The mean length of stay for the restricted diet group was 4.02 ± 1.10 days and 2.86 ± 1.32 for the liberalised diet group ($p=0.001$). In a multiple regression analysis, when accounting for confounding variables, compared to a restricted diet, a liberalised diet had a significantly decreased length of stay of 0.91 days (95% CI: -1.714 to -0.119; $p=0.02$). There were no significant differences in readmission, reoccurrence, GP visits and gastrointestinal symptoms between outpatient diet groups 30 days post-discharge. At 6 months post-discharge there were no significant differences in readmission for both inpatient and outpatient diet groups.

Conclusion: This study found that a liberalised diet is associated with a shorter hospital length of stay compared to a restricted diet in patients with acute, uncomplicated diverticulitis. It has also been shown that a liberalised diet is safe in terms of diverticulitis

Lightning talk and poster abstracts

reoccurrence, hospital readmission and gastrointestinal symptoms. This study was unable to support the efficacy of a high fibre diet in the management and prevention of diverticular disease.

Sensory modulation in the Lavender Mother-Baby Unit: Using a novel intervention to improve maternal mental health and mother-infant relationships for mothers with severe mental illnesses

Grace Branjerdporn (1), Pamela Meredith (2), Debra Creedy (3), Jenny Strong (4), Susan Roberts (1), Linda Parlato (1)

(1) Gold Coast Health; (2) Central Queensland University; (3) Griffith University; (4) Metro North

Background/objectives: Perinatal mental illness may have significant long-term health, social and economic impacts, such as infanticide, lost productivity and intergenerational trauma. Sensory modulation is an intervention led by occupational therapists which has gained attention in adult psychiatric inpatient units, but has never been empirically examined in mother-baby units. The proposed project aims to examine the effects of sensory modulation by comparing clinical outcomes of women who receive the intervention, or treatment as usual. The experiences of women and clinicians on the use of sensory modulation are also explored.

Method: This project uses a mixed-method, randomized controlled trial design. Women will be randomly allocated to the intervention group or the treatment-as-usual group, based on a 2:1 ratio.

Results: Standardised measures of maternal distress and parental confidence will be administered across the continuum of care. For the intervention group, a short distress questionnaire will be completed immediately prior to and after use of the sensory kits.

Conclusion: Findings from the study will enhance care provided to mothers with severe mental illness, particularly when admitted to a mother-baby unit. The results from the study will provide preliminary evidence of the benefit of this novel intervention with this population to inform appropriate clinical guidelines, and discharge protocols.

Next generation sequencing profiling identifies mir-7703 as potential novel diagnostic biomarker for oral cancer

Rushdi S Fadhil (1), Raj G Nair (2), Dimitrios Nikolarakos (3), Good DA (4), Ming Q Wei (1)

(1) School of Medical Science and Menzies Health Institute; (2) School of Dentistry and Oral Health and Cancer Services, Gold Coast University Hospital and Menzies Health Institute, Griffith University; (3) Gold Coast University Hospital; (4) School of Physiotherapy, Australian Catholic University

Background/objectives: Salivary microRNAs (miRNAs) in different types of cancer as biomarkers for follow up, diagnosis and prognosis has been strongly recommended. However, the significance of salivary miRNAs in oral cancer is still being investigated. The aim of this study is to detect the signature of salivary miRNAs in OSCC and the potential to apply them as significant biomarkers in oral cancer diagnosis and prognosis.

Methods: Salivary miRNA of twenty-four supernatant saliva samples (twelve OSCC patients and twelve healthy individuals) were profiled by next generation sequencing (NGS). Then, the significant miRNA (miR-7703) was detected using patients (n=80) and healthy individuals (n=80) by quantitative real-time polymerase chain reaction (qRT-PCR) in the validation study.

Results: The expression of more than one and a half million miRNAs has been revealed different in saliva samples of patients with OSCC compared with the healthy individuals group. Total of the significant miRNAs (638 miRNAs) were revealed between OSCC and healthy individuals group using miRNA-NGS ($P \leq 0.05$). Data analysis revealed that from these significant miRNAs, eleven differentially expressed, non-redundant miRNAs were associated with oral cancer. In validation phase, miR-7703 was identified as differentially expressed between OSCC group and control group.

Conclusion: The study found eleven non-redundant miRNAs that were correlated with oral cancer. These biomarkers involved those that were previously reported in different types of cancers. Importantly we report for the first time a new miRNA (miR-7703).

Lightning talk and poster abstracts

This salivary miRNA may serve as signature biomarkers for oral cancer diagnosis and prognosis.

When children die: GCH Allied Health paediatric palliative care project

Kelly Weir (1,2,3), Kylie Gill (2), Angela Delaney (3,4), Susan Moloney (2), Anthony Herbert (4), Sharon Mickan (2,3), Michelle Noyes (2), Timothy Hong (2), Andrew Broadbent (2)

(1) Menzies Health Institute Queensland; (2) Gold Coast Hospital and Health Service; (3) Griffith University; (4) Children's Health Queensland

Background/objectives: Best practice, palliative and end-of-life care (EOLC) enhances symptom management and quality-of-life for individuals who are palliative and dying, and their families. Although Gold Coast Health (GCH) has a dedicated, interdisciplinary palliative care service (including allied health) for adults, no equivalent local paediatric service exists, highlighting inequity of access to care for children, and placing extra demands on under-resourced acute paediatric allied health services when children present to hospital in crisis. This project investigated allied health service usage of children requiring palliative and EOLC in GCH.

Method: A retrospective clinical audit was conducted to map the patient journey of all neonatal/paediatric deaths within GCH between September 2013 and May 2018, including children with life limiting conditions and requiring palliative and EOLC. Variables included: number and place of death, diagnoses, number/reasons for hospital admissions, length of stay, frequency and type of allied health interventions received.

Results: 132 neonatal/paediatric deaths and 15 current paediatric patients were identified. 85 deaths occurred at GCUH, 26 elsewhere, and 21 at home. Of 3842 episodes of care, 2232 interventions were provided by acute service AHPs. Proportion of AH interventions included Social Work(25%), Dietetics(25%), Physiotherapy(24%), Occupational Therapy(12%), Speech Pathology(9%), Psychology(3%) and Music Therapy(2%). Of the 72 children who received paediatric palliative care (PPC), only 4 did not receive their primary care management at GCUH. Full data will be presented.

Conclusion: GCUH requires a funded, appropriately resourced, interdisciplinary PPC and bereavement service to ensure children have equitable access to evidence based, local services across the continuum of care (including in-the-home).

Funding: Allied Health Clinical Governance, Education & Research Project Funds.

Direct Care Nurses Improving the Safety and Quality of Patient Care informed by real time data

Anita Bamford-Wade (1), Rebekah Edwards (1)

(1) Gold Coast Health and Griffith University

Background/objectives: Releasing Time to Care (RTtC) is an evidence based continuous improvement program led by staff on their unit. The program objectives are to improve systems and processes allowing nursing teams to spend more time directly caring for their patients thereby improving the reliability, efficiency, patient safety, staff well-being / satisfaction and the patient experience. Six inpatient units are participating in the 6-month pilot program.

Methods: Inpatient Unit (IPU) Nursing Team meetings were facilitated by the RTtC program coordinator to understand the presenting problems. A frustrations exercise assisted prioritise the work. Each IPU selected the data that was relevant to assist improving their practice and baseline data was collected. The identified data is collected daily and displayed on the RTtC board. There is a daily huddle around the RTtC board to discuss progress. The high visibility of the real-time data assists nurses to be informed and consistently work at improving patient care delivery. Activity follows were also undertaken to identify the percentage of time spent by a nurse on a shift.

Results: The activity follows identified that between 29-42% of a nurses time was being spent in direct patient care across the 6 participating IPUs. The IPU's data collection is having an impact on improving patient care delivery.

Conclusion: Even though it is early days in the program of work, the results speak for themselves.

Lightning talk and poster abstracts

Nurses are focused on improving their practice and improving the patient experience.

Funding: Professor of Nursing and Midwifery.

ICHOM standard set of outcome measures for pregnancy and childbirth: A feasibility study within the Australian context

Valerie Slavin (1,2,3), Jennifer Fenwick (1,2,3),
Debra K Creedy (1,3), Jenny Gamble (1,3)

(1) Griffith University; (2) Gold Coast University
Hospital; (3) Maternity, Newborn and Families
Research Collaborative

Background/objectives: Accurate and effective measurement of maternity care plays an important role in quality improvement activities. Current healthcare quality metrics that focus on processes and systems may be missing the mark. Measurement often pays little attention to outcomes impacting long-term health or women's views about their health and care. Compounding this, variability of measurement tools across services and States hampers comparison and benchmarking. The recently published standard set of outcome measures for Pregnancy and Childbirth by the International Consortium for Health Outcomes Measurement (ICHOM) may address these issues.

Method: A prospective matched 2-arm cohort study using the ICHOM Standard Set of Outcome Measures for Pregnancy and Childbirth. The Set measures self-reported health and wellbeing and satisfaction using several validated measures. Selected perinatal outcomes were obtained from routinely collected electronic hospital data. Consenting women (n=309) were invited to complete surveys at 6 time-points from early pregnancy to 12-months postpartum.

Results: Recruitment and data collection figures indicate a high response rate with an 85-90% retention rate at each time-point (6 months). We will present findings related to the feasibility of the ICHOM Standard Set to measure maternal physical, mental and social health during pregnancy; a first in the Australian context.

Conclusion: The Standard Set of ICHOM measures reflect a comprehensive set of outcomes, which are important to women and may be useful in transforming healthcare within and across states, as well as countries. The use of a standardised set of measures will contribute data to facilitate Australian and global bench-marking of maternity services.

Funding: Research Grants Committee, Private Practice Trust Fund (Gold Coast Hospital and Health Service).

General anaesthetic vs local anaesthetic in C-sections at GCUH - a clinical audit

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Background/objectives: To identify the rate of GA C-sections and rate of failed neuraxials leading to GA C-sections and to identify modifiable factors that can improve provision of anaesthesia within Gold Coast Health.

Method: Data was collected retrospectively over a period of 21 months (July 2015 – April 2017) from eMR, ORMIS and MATIS databases pertaining to C-sections carried out under GA, pain experienced during C-sections under LA and LA to GA conversion rates.

Results: Rates of GA C-sections were 27% for Cat 1, 10% for Cat 1-3 and 4% for Cat 4 (elective) group. LA to GA conversion rates were 13% for Cat 1, 4% for Cat 1-3 and 2% for Cat 4 (elective) group. 4% of patients experienced pain under LA during their C-sections, 2% in Cat 1-3 and 1% in Cat 4 (elective) group.

Conclusion: Rates of GA C-sections and conversion of LA to GA C-sections in Gold Coast Health are well within the acceptable rates proposed by Royal College of Anaesthetists. Modifiable factors identified during this audit were to improve communication between obstetrics and anaesthetic teams, discourage persistence with spinal blocks after more than 2 failed attempts and to obtain psychiatry review for needle-phobic patients so as to reduce the rates of GA C-sections in anxious/needle-phobic group.

Lightning talk and poster abstracts

Get Set for Surgery: An initiative that empowers patients to increase their wellness

Che Hooper (1), Helen Clifford (2), Matthew Corbitt (1), Tyler Yaun (1), Carl de Wet (1,2)

(1) School of Medicine, Griffith University; (2) GPLU, Gold Coast Health

Background/objectives: There is compelling evidence from the international literature that patients who are actively engaged and supported in preparing for elective surgical procedures recover faster and with fewer complications. The Get Set for Surgery (GSfS) initiative aims to improve elective surgical outcomes by supporting patients to reduce lifestyle and behaviour-related risks and increase their wellness.

Methods: All patients listed for specific surgical procedures are eligible for GSfS. The procedures are: knee and hip replacements (Orthopaedic Surgery); hysterectomies and pelvic floor repairs (Gynaecology); and stents for non-cardiac, atherosclerotic disease (Vascular Surgery). Patients complete a health questionnaire and if they consent are referred to community wellness programs endorsed by Queensland Health, including: 'COACH'; 'Get Healthy'; 'My Health for Life'; 'QUIT'; and 'Active and Healthy'. Patient outcomes are determined through retrospective record review performed by trained clinicians. Data are securely stored and analysed through descriptive statistical tests.

Results: In the last nine months, a total of 383 patients were referred to Community wellness programs from: Gynaecology (108, 28.2%), Orthopaedics (249, 65.0%) and Vascular (26, 6.8%). 25% and 78% of eligible patients were referred from GCUH and Robina respectively. Anecdotal feedback from patients and stakeholders suggest the program is acceptable, feasible and useful, with positive surgical outcomes and increased wellness.

Conclusion: GSfS has increased clinician awareness of community programs and increased participation by patients. It is empowering patients to proactively identify and address their individual, modifiable risk factors prior to elective surgical

procedures and to make meaningful improvements to their own health and wellbeing.

Funding: Recipient of the 2017 GCH Improver's grant of \$100 000.

Pilot and validation of the SHReD learning styles questionnaire for patient education

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Background/objectives: To develop and validate a questionnaire that can be used by healthcare professionals to identify patients preferred learning styles in order to provide tailored education.

Methods: The SHReD (Seeing, Hearing, Reading/writing, Doing) Learning Styles Questionnaire was created to identify patient learning styles. Face and content validity were determined using feedback from health education experts. A pilot study was conducted in 40 participants to obtain data for statistical analysis. In the reliability analysis Chronbach's alpha values were determined to measure the internal consistency of the questionnaire. A regression analysis was performed to detect proportionality between question and chosen learning styles.

Results: Expert feedback during face validity identified that the questionnaire was too long and repetitive. Reliability analysis found a high degree of internal consistency with a Chronbach's alpha value of 0.92. Regression analysis highlighted questions that were under or over measuring particular learning styles. This resulted in the deletion of two questions from the questionnaire. Sixty-five percent of pilot study participants were multimodal learners. Of the unimodal learners, 25% were identified to learn predominantly through doing and none by seeing.

Conclusion: The SHReD Learning Styles Questionnaire was developed and validated for assessing patients preferred learning styles. Validity assessment revealed that revision of the

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questionnaire was required, which resulted in multiple item deletions. The SHReD Learning Styles Questionnaire is now ready to be trialed in a patient population. It is hoped this questionnaire would aid healthcare professionals in providing individualised patient education and potentially improve health outcomes.

Oral microbiome and its potential role in the early detection and monitoring of oral cancer

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Background/objectives: Oral squamous cell carcinoma (OSCC) have been traditionally linked to consumption of tobacco and alcohol. OSCC progression is also strongly associated with the human papillomavirus infection. In addition, dysbacteriosis have been strongly associated with cancer development in several ways. Here in this study, we aimed to utilize the oral dysbacteriosis and the subsequent metabolites dysregulation in OSCCs for the development of OSCC early diagnosis strategy.

Methods: The oral rinse samples were collected from OSCC patients and a matched group of healthy adults. The samples were subjected to the DNA extraction and 16S rRNA sequencing for the microbiota profiling. In addition, a part of the collected samples was used for the bacterial broth media inoculation for the analysis of microbiotas' volatile metabolites using gas chromatographymass spectrometry.

Results: The bacterial diversity and abundance estimations indicated the significant dysbacteriosis of them in OSCC patients compared to those in healthy adults. There was a significant dysbiosis of Proteobacteria, Haemophilus, Gemella,

Granulicatella, Enterococcus, Porphyromonas and Actinobacillus in OSCCs compared to those in healthy adults. The relative integrated signal and frequency analysis of the detected volatile metabolites also showed the significant association of 2,3-butanediol, 2-tridecanol, 2-tetradecanone, 2-(1-methylpropyl) pyrazine, 1-hexadecyne, benzene (1-nitropropyl)-, 4-ethylcyclohexanol and 1-decanol with OSCC samples.

Conclusion: The results demonstrated a possible association between oral dysbacteriosis and OSCC, which proposed a potential of microbiota-related diagnosis and therapies for OSCC. Also, the metabolites analysis of oral microbiota using the culture-based method would be promising for the development of a rapid diagnostic method for OSCC.

Funding: Griffith University HDR support.

Kennedy Terminal Ulcers: A scoping review

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Background/objectives: Kennedy Terminal Ulcers (KTU) are associated with the dying process and are under-recognised by clinicians. Similar in appearance to pressure injuries, KTU may be incorrectly assessed; potentially resulting in sub-optimal care, diminishing patients' confidence in health care providers, and attracting financial penalties. The aim of this scoping review was to identify published KTU research in acute care, hospice and nursing home settings, and to provide an analytical synthesis of the findings.

Methods: Arksey and O'Malley's five step methodological framework guided this scoping review of the scholarly and grey literature. We systematically reviewed the Cochrane Library, CINAHL, EMBASE, MEDLINE and ProQuest databases and five guideline repositories between 1983-2018. Search terms included: Kennedy ulcers, Kennedy terminal ulcers, terminal ulcer, skin failure and skin changes at life's end. Using purposely-

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developed data collection tools, we extracted the study characteristics.

Results: Initial databases and grey literature searches yielded 2,986 results; with 32 documents included in the final analysis. KTU are considered unavoidable, thus should not attract financial penalties. There is limited KTU prevalence data, with no Australian data available. Nurses in the USA are the predominant KTU authors, with case studies the most frequent research publication. Across the 32 documents, no funding was stated.

Conclusion: The limited availability of primary KTU research impacts healthcare professionals' management of these end-of-life skin conditions. KTU research in Australia is needed to give clinicians a solid evidence-based on which to provide appropriate, patient-centred care.

Intervention Of The Week: A little staff recognition goes a long way

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Background/objectives: To recognise pharmacy staff for great performance and share key practice learning points through implementation of Intervention Of The Week (IOTW).

Method: IOTW is a weekly email circulated to pharmacy staff that details an intervention made to optimise patient care and key learning points, whilst acknowledging the responsible staff member. It was developed and implemented in 2016 after the results of a staff engagement survey indicated recognition of great performance was a key area for improvement in pharmacy. In 2018, the staff engagement survey was repeated. A separate survey was also conducted in 2018 to determine the uptake of IOTW and its success in recognising pharmacy staff for great interventions.

Results: Compared to the 2016 staff engagement survey (n=77 respondents), the 2018 survey (n=106 respondents) recorded an increase of 15% in the number of pharmacy department staff who agreed their manager recognises and rewards great

performance. Of the 32 staff who responded to the IOTW survey, 84% read IOTW weekly, and the remaining 16% read IOTW fortnightly. The success of IOTW in recognising pharmacy staff for great interventions was rated as 7.9 (n=32) on a scale of 1 to 10, where 10=extremely successful. When asked to justify their rating, respondents reported that IOTW showcases the excellent work of colleagues and provides learning opportunities.

Conclusion: IOTW acknowledges pharmacy staff for interventions that have been made in the provision of patient care and staff identify it as promoting a positive culture of recognising, sharing and learning from the great performance of others.

The role of the nurse in antimicrobial stewardship: an integrated review

Sarah Thomas (1)

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Background/objectives: Antibiotic resistance is a global problem and it can be effectively controlled by appropriate antimicrobial stewardship strategies.

Method: An integrative review using a systematic search of available literature was performed in MEDLINE, CINAHL Plus with full text, Scopus and Web of Science for studies published from 2013-2018 in English and among humans.

Results: Thirteen studies that met the inclusion and exclusion criteria were included in the review. Five studies were qualitative, seven were quantitative and one used mixed method. All the studies identified the role of education in preparing nurses to be antibiotic stewards. A barrier to implementation could be the professional role perceptions within organisations. It was identified, however, that nurses were willing to participate in an antimicrobial stewardship programme (ASP) as it was considered as an extension to their role as patient advocate.

Conclusion: There is a paucity of literature on the outcomes of nursing participation in ASPs. Educating nurses pre- and post-registration on antibiotic stewardship principles is required to empower them to support the correct decisions in relation to antimicrobial use. Nurses need to be involved in

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ASPs and the related outcomes of their involvement should be monitored. Nurse prescribers do have role in antimicrobial stewardship (AMS).

VOICE OF THE STAFF: Suicide Prevention Strategy Survey

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Background/objectives: The Voice of the Staff Suicide Prevention Strategy Survey was designed to explore employee's attitudes and beliefs regarding suicide, as well as their confidence and skills in working with patients at risk of suicide.

Methods: The survey was distributed among all GCMHSS clinical staff in 2016 (completed by 256 persons) and again in 2017 after the implementation of Suicide Prevention Pathway (SPP) strategy (completed by 294 persons). Results between the two years were compared using descriptive bivariate analysis.

Results: Beliefs and attitudes towards people at risk of suicide and suicide prevention were on average positive and did not change significantly between 2016 and 2017. Prior to the survey, majority of MHSS staff attended suicide prevention training however still many did not feel adequately equipped to provide care to suicidal clients (32.5% in 2016 and 12.9% in 2017). In both years, staff reported higher skills and confidence pertaining to assessment of at-risk clients rather than their management. Significant increases were observed in staff perception of the organisational approach to suicide prevention: in 2017, 55.7% felt that GCMHSS' leadership is committed to suicide prevention through implementation of relevant processes and training, and 44.8% stated that at GCMHSS suicidal clients receive evidence-based treatment. While 81.3% of participants reported receiving support needed to work with suicidal clients, two thirds indicated the need for further training different areas of suicide prevention.

Conclusion: The results demonstrate improvements in beliefs and actions related to suicide prevention of GCMHSS' clinical staff following the implementation of the SPP. Several areas requiring ongoing attention in the quest to improve the quality of care for at-risk patients were also identified.

Designing a clinical trial for the evaluation of a medicinal cannabis product in persistent pain

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Background/objectives: The use of Cannabis (the pharmacologically active extracts of the female plants of *Cannabis sativa*, *C. indica* and *C. ruderalis*) for medical application is now permitted in most Australian states. One of the major reasons given for 'recreational' Cannabis and a subject of interest at this time is the application of Cannabis for Chronic Pain. Despite publications from the American Academy of Sciences (2017), the UK Government report by Barnes and Barnes (2016) and the TGA Guidance Document (2017), support from Australian clinicians is limited because of lack of evidence for the clinical utility of Cannabis and concerns about the potential for abuse and misuse similar to that already being experienced with opioid analgesia. The TGA Guidance document goes as far as suggesting that their use should only be undertaken after pharmacological and non-pharmacological treatments have been exhausted and in the context of clinical trials. Unless such clinical studies are conducted we risk use of recreational cannabis products within our patient cohort and an increased demand for legalisation of this drug.

Method: A double-blinded, placebo-controlled clinical trial using a topical product appropriately flavour-tainted to discourage oral and inhaled use may be a formulation that would provide a disincentive to recreational diversion. It is proposed that two formulations be assessed; a 98%:2% CBD:THC and 50%:50% CBD:THC mix vs. an inactive but matching placebo whilst receiving usual (current) care.

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Results: Finding a producer of a Medicinal Cannabis who is willing to support a clinical trial is difficult because they currently don't adopt a research paradigm.

Conclusion: N/A

Poster only

Implementation and Recruitment of the Fibrinogen Early In Severe Trauma study (FEISTY)

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Background/objectives: Fibrinogen Early In Severe Trauma study, a pilot multicentre RCT compared Fibrinogen Concentrate (FC) to Cryoprecipitate for fibrinogen supplementation in traumatic haemorrhage. Adult trauma patients with evidence of haemorrhage were randomised to receive either FC or cryoprecipitate. Primary outcome was time to fibrinogen supplementation. Recruitment relied upon the on-site multi-disciplinary clinical team working in high pressured and time critical situations. Implementation began 12 months prior to recruitment.

Methods: Implementation and recruitment data was collected prospectively from January 2016 to January 2018.

Results: Implementation focused on staff engagement and high visibility of the research project team at all sites. Multiple education sessions were provided both in person and via electronic/paper resources and trial updates were continuously provided through social media and email. During recruitment there was a 24/7 phone hotline to provide sites with assistance if required. These strategies were successful as trial recruitment concluded 9 months early and under budget. Projected Recruitment vs Actual Recruitment was 5.5 v 9.5

patients per month. Month 6 was the highest recruiting month (20 patients). Overall recruitment increased throughout the study with no trial fatigue demonstrated. In hours vs out-of-hours recruitment was 38% v 62% respectively. Out-of-hour's recruitment ranged between 55 – 71% of total recruitment per site.

Conclusion: Performing research within the severely injured trauma patient population can be complex and challenging. Recruitment to this trial occurred faster than anticipated, with the majority being out of hours. We have demonstrated that after hours recruitment can succeed with engagement from the multidisciplinary team.

Funding: Gold Coast Hospital and Health Service (PPTF), Emergency Medicine Foundation, National Blood Authority

Fibrinogen Concentrate vs. Cryoprecipitate In severe traumatic haemorrhage: A pilot randomised controlled trial - FEISTY

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Background/objectives: Major haemorrhage in the setting of severe trauma is associated with significant mortality. Trauma Induced Coagulopathy of which hypofibrinogenaemia plays a major role is independently associated with worse outcomes. This study assessed the effects of a targeted dose of Fibrinogen Concentrate (FC) vs. Cryoprecipitate (Cryo) in traumatic haemorrhage.

Methods: A multi-centre, pilot RCT. Inclusion Criteria: 1) Adult affected by Trauma 2) Judged to have significant haemorrhage 3) Predicted to require significant transfusion with ABC score ≥ 2 or by treating clinician judgement. Intervention: 100 patients were randomised into FC (Intervention) or

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Cryo (Comparator) arms with requirement for fibrinogen replacement triggered by pre-specified FIBTEM A5 \leq 10 mm. Primary outcome measure: Time to administration of Fibrinogen Replacement

Results: 50 patients were randomised into each arm. 60 patients required a fibrinogen replacement (35 FC and 25 Cryo). Median time to intervention for FC was 29 mins (IQR 23 – 40) compared to Cryo 60 mins (IQR 40 – 80). The mean time to first treatment advantage for FC over Cryo was 33 min (95% CI 17 to 48 min). In a univariable Cox proportional hazard model the HR for commencement of treatment was 2.8 (95% CI 1.7 to 4.9) in favour of FC.

Conclusion: FC therapy commenced 31 mins before Cryo. FC has a substantial advantage in time to administration relative to Cryo in patients with severe trauma. This study will add to the evidence base and inform the planning of a definitive multi-centre study with patient centred outcomes as primary endpoints.

Funding: GCHHS PPTF, Emergency Medicine Foundation, National Blood Authority